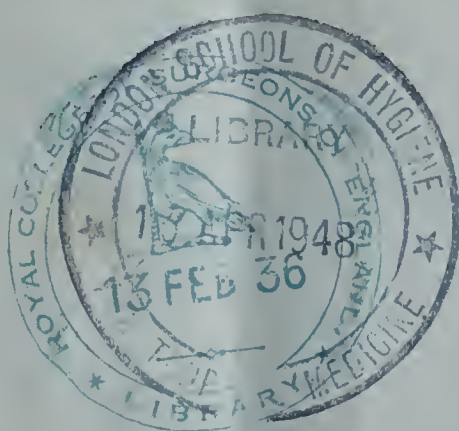




ANNUAL PUBLIC HEALTH REPORT  
of  
The Province of Assam  
for the year 1934

BY

LIEUT.-COLONEL T. D. MURISON, D.P.H., I.M.S.,  
DIRECTOR OF PUBLIC HEALTH, ASSAM.



SHILLONG

PRINTED AT THE ASSAM GOVERNMENT PRESS

1936

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**GOVERNMENT OF ASSAM**  
**OFFICE OF THE DIRECTOR OF PUBLIC HEALTH, ASSAM**

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No. 11090

FROM

LIEUT.-COLONEL T. D. MURISON, D.P.H., I.M.S.,  
DIRECTOR OF PUBLIC HEALTH, ASSAM,

TO

THE SECRETARY TO THE GOVERNMENT OF ASSAM  
IN THE TRANSFERRED DEPARTMENTS.

*Dated Shillong, the 15th August 1935.*

SIR,

I HAVE the honour to submit herewith the Annual Public Health Report of the Province of Assam for the year 1934.

Your obedient servant,

T. D. MURISON, *Lieut.-Colonel*, I.M.S.,

*[Director of Public Health, Assam.]*

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# ANNUAL PUBLIC HEALTH REPORT

of

## The Province of Assam

for the year

### 1934

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#### CHAPTER I.

##### METEOROLOGY; ECONOMIC CONDITIONS, I.E., PRICES OF FOOD-GRAINS, ETC.

The Meteorologist, Calcutta, has furnished the following note on the Chief Meteorological Conditions of the Province for the year 1934:—

*The cold weather period—January and February.*—Out of seven western disturbances during January only two affected weather in this Province; these were however not very active and produced rainfall only 3 per cent. in excess. In February two low pressure areas which passed eastwards from Sind were responsible for widespread thundershowers over Assam and produced rain 103 per cent. above normal. Widespread thundershowers with hail occurred in Assam and a hurricane is reported to have swept over many villages in the Brahmaputra Valley on the 17th of February; according to the newspaper reports considerable damage was done to property and a number of lives were also lost. During the two months, temperatures and humidity and cloud amount were generally not far from normal.

*Hot weather period—March to May.*—In March the activity of thunderstorms over Assam was less marked than usual and the western disturbances also did not affect weather there. These causes were responsible for a large defect of 71 per cent. in the month's rainfall over Assam. In the latter two months, however, rainfall was in slight excess, thundershowers being fairly widespread, particularly in May. Temperatures were generally in slight excess during the first two months and in slight defect in the last month. Cloud amount was in slight defect in March and in slight excess in the other two months. Humidity was almost normal. A severe tornado is reported to have affected Sylhet and its suburb on the night of 30th April and according to the newspaper reports many lives were lost and considerable damage done to property. According to the report of the Deputy Commissioner of Sylhet, the Government Steamer "Lindsay" capsized and sank on the night of the 30th. Three more severe thunderstorms are reported to have affected the Division during the month of May, one on the 7th, another on the 16th and the third on the 19th. According to reports many lives were lost and a steamer "Juno" was sunk in the Kushiara.

*Monsoon period—June to September.*—The Bay monsoon current remained shallow during the first three weeks of June but during the last week, two depressions, one following the other, formed at the head of the Bay and gave rain 43 per cent in excess, with locally very heavy falls on and near the Khasi Hills. Some of the noteworthy heavy falls recorded were: 18", 21", 25" and 36" on 14th, 18th, 19th and 20th respectively at Cherrapunjee, and 16" at Shillong and 5" at Tezpur on the 19th. This heavy rain is reported to have caused severe floods in the Brahmaputra which resulted in loss of lives and cattle and considerable damage to



property. Two depressions formed at the head of the Bay during the first half of July; the rainfall associated with the second depression was confined only to the hills and the submontane districts. After this the monsoon current temporarily weakened in Assam but it again strengthened during the last week.

During the last two months five depressions (four in August and one in the first half of September) and one storm formed in the Bay of Bengal. These however did not cause much rain in Assam and the rainfall was in slight defect in both the months.

Temperatures were normal or in slight defect in the first two months and generally in slight excess in the latter two. Humidity and cloud were generally not far from normal.

*The retreating monsoon period—October to December.*—A low pressure area moving westwards from China Sea across Burma intensified into a deep depression over south-east Bengal and filled up during the first week of October. It caused fairly widespread rain with locally very heavy falls in Assam; Cherrapunjee reporting 22" on the 3rd and 15" on the 4th. A Bay storm which crossed the coast near Balassore did not appreciably affect weather over this province.

Under the influence of a storm which crossed the coast near Akyab on the 7th of November, rainfall was nearly general in the beginning of 2nd week of the month; during the second fort-night scattered falls occurred occasionally in Assam. But for a few falls of rain during the second week, the month of December was almost rainless in Assam.

Rainfall was in slight excess in the first month and more or less normal in the other two months. Temperatures and humidity were not far from normal in October and December, but in November, day temperature was in slight defect and night temperature and humidity were in slight excess. Cloud amount was in slight defect in December and in the other two months it was in slight excess.

2. The staple diet of the Province is rice. The table below shows the average quantity of common rice sold per rupee in 1934 as compared with the previous five years :—

Economic Conditions, Prices of Food-grains, etc.

Districts.	1934	1933.	1932.	1931.	1930.	1929.
1	2	3	4	5	6	7
	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.
Cachar ...	12 0	14 11	15 4	10 15	8 7	6 9
Sylhet ...	11 10	13 12	10 9	9 12	7 1	6 5
Goalpara ...	12 5	16 1	14 12	11 2	7 6	6 11
Kamrup ...	11 4	15 7	14 4	10 4	8 9	6 0
Darrang ...	13 6	14 8	12 12	11 1	8 9	6 0
Nowgong ...	12 10	15 7	13 12	11 9	9 3	7 4
Sibsagar ...	11 7	11 13	10 9	8 10	6 7	5 15
Lakhimpur ...	11 1	11 13	10 8	7 15	6 5	5 12

From the figures given above it will be seen that there was a tendency for the price of rice to rise in districts during the year under review.

The Provincial birth and death rates fell from 31.04 and 20.31 in 1933 to 30.62 and 19.64 respectively in 1934.



## CHAPTER II—VITAL STATISTICS.

(Including Population and Emigration and Immigration.)

3. The report deals only with the plains districts of the Province, the population of which, according to the census of 1931, was 7,927,953 (4,187,085 males and 3,740,863 females). As in previous years, the birth and death-rates have been calculated on the Census population of 1931 without taking into consideration the growth of population during the year. The table below shows the corrected population of each district under registration and indicates what the birth and death rates would have been if they were calculated on the corrected population ;—

General Census Figures.

Table 'D' for the year 1934.

Districts.	Mid year population.	Number of births.	Birth-rate per mille based on the intercensal population.	Birth-rate per mille based on the present method.	Number of deaths.	Death-rate per mille based on the intercensal population.	Death-rate per mille based on the present method.	Difference in the birth-rates (5) — (4).	Difference in the death-rates (8) — (7).
1	2	3	4	5	6	7	8	9	10
Cachar ...	559,114	18,542	33·16	34·41	10,121	18·10	18·78	+1·25	+·68
Sylhet ...	2,849,666	94,737	33·26	34·79	60,171	21·11	22·09	+1·53	+·98
Goalpara ...	906,360	30,412	33·55	34·45	20,704	22·84	23·45	+·90	+·61
Kamrup ...	999,697	20,964	20·97	21·46	13,543	13·55	13·86	+·49	+·31
Darrang ...	598,971	19,452	32·48	33·26	12,525	20·91	21·42	+·78	+·51
Nowgong ...	575,156	10,408	18·09	18·50	6,372	11·08	11·33	+·41	+·25
Sibsagar ...	963,613	26,741	27·75	28·65	17,700	18·37	18·96	+·90	+·59
Lakhimpur ...	745,028	21,450	28·79	29·60	14,565	19·55	20·10	+·81	+·55
Total for the Province	8,197,605	242,756	29·61	30·62	155,701	18·99	19·64	+1·01	+·65

Registration is only partially carried out in Hill Districts and its results are shown separately in paragraph (11) of this report.

The birth-rate of the province for the year under report was 30·62 against 31·04 in the preceding year. A statement showing the comparison of the birth rate of this province with that of other provinces in India is appended below :—

Births and Birth-Rates.

Provinces.	Birth-rate.		
	1929-33.	1933.	1934.
1	2	3	4
Assam ...	28·93	31·04	30·62
Bengal ...	27·21	29·53	29·34
Bihar and Orissa ...	33·65	35·7	33·66
Central Provinces ...	45·08	44·25	44·80
Madras ...	37·40	37·72	36·17
Burma ...	27·89	29·83	30·22
Bombay ...	36·81	36·39	35·79
United Provinces ...	36·22	39·22	36·74
Punjab ...	41·0	44·44	40·01
North-West Frontier Province ...	29·22	30·05	30·83



It will be observed that the birth-rate in Assam was higher than that of Bengal and Burma but lower than that of all the other provinces.

4. The total number of births registered during the year under review was 242,756, yielding a birth rate of 30·62 per 1,000 of population as compared with 246,118 and 31·04 respectively in the preceding year. The number of births registered in 1934 was lower than that of 1933 by 3,362. The quinquennial average was 28·93. As in the previous year, the highest birth rate (34·79) was recorded in the district of Sylhet, followed by Goalpara (34·45), Cachar (34·41), and Darrang (33·26). These four districts return a birth rate above, and the other four districts below the provincial average (30·62). The lowest birth-rate was recorded in the Nowgong district (18·50).

The highest birth-rate of 3·28 in January was followed by 3·27 in December. The lowest birth-rate (1·79) was recorded in June.

During the year under report, births exceeded deaths by 87,055 or 10·93 per mille of population. The number of males to every 100 females born was 107.

5. The total number of births registered in Urban Areas in the Province in 1934 was 6,259 or 32·18 per mille of population, as compared with 6,045 and 31·08 respectively in the preceding year. The highest rate (63·58) was recorded, as in the previous year, in the town of Barpeta in the Kamrup district, followed by Haflong (46·26) in Cachar, Palashbari (44·50) in Kamrup, Hailakandi (36·96) in Cachar, Karimganj (35·32) in Sylhet, Nowgong (35·24) Habiganj (34·71) in Sylhet, Dhubri (34·02) in Goalpara, Gauhati (33·90) in Kamrup, Sunamganj (32·48) in Sylhet, Tezpur (32·04) in Darrang, and Jorhat (31·68) in Sibsagar. The lowest rate (11·05) as in the previous year, was again recorded in the town of Doom-Dooma in the Lakhimpur district. The proportion of females to males residing in the town is very low. The birth-rate exceeded the death rate in all towns. The excess varied from 37·52 in Barpeta to 3·16 in Doom-Dooma.

6. The total number of births registered in Rural Areas in the Province in 1934 was 2,36,497 or 30·58 per mille of population, as compared with 2,40,073 or 31·03 respectively in the preceding year. The highest rate (48·77); as in the previous year, was recorded in Lakhai circle in the Sylhet district, followed by Hailakandi (43·56) in Cachar, Dhubri (42·47) in Goalpara, Kalaigaon (41·43) in Darrang, Baniachong (41·20) in Sylhet. The circles reporting low birth rates were Kaliabor (4·95) in Nowgong, Sorbhog (7·82) in Kamrup and Digboi (8·42) in Lakhimpur. These low rates are probably due to defective registration. The proportion of females to males residing in these areas is also low.

*Deaths and death rates.*—The death-rate of the Province for the year under report was 19·64, as compared with 20·31 in the previous year. A statement showing the comparison of the death-rate of this Province with that of other Provinces in India is appended below:—

Provinces.	Death-rate.		
	1929-33.	1933.	1934.
1	2	3	4
Assam ... ..	18·90	20·31	19·64
Bengal ... ..	21·93	24·00	23·58
Bihar and Orissa ... ..	24·06	22·1	26·05
Central Provinces ... ..	32·17	26·55	37·22
Madras ... ..	24·03	23·66	24·95
Burma ... ..	19·15	18·71	20·62
Bombay ... ..	26·34	24·79	25·42
United Provinces ... ..	23·87	18·69	26·75
Punjab ... ..	26·0	28·16	27·70
North West Frontier Province ... ..	21·42	21·28	21·06

It will be observed that the death-rate in Assam was lower than that of any other Province in India.



7. The total number of deaths registered during the year under report was 1,55,701, yielding a death rate of 19·64 per mille of population, as compared with 1,61,054 and 20·31 respectively in the preceding year. The quinquennial average was 18·90. Four districts viz., Sylhet, Goalpara, Darrang and Lakhimpur returned death-rates above, and the other four below the quinquennial average.

The highest death-rate was recorded in the district of Goalpara (23·45) followed by Sylhet (22·09), Darrang (21·42) and Lakhimpur (20·10) during the year under review. The death-rate in the Nowgong district was the lowest in the Province. The total mortality in 1934 was lower by 5,353 than in the previous year. The number of deaths reported from each district in 1934 is compared below with that of 1933 :—

	1934.	1933.	Increase or decrease.
1	2	3	4
Cachar ...	10,121	12,188	—2,067
Sylhet ...	60,171	64,799	—4,628
Goalpara...	20,704	20,857	—153
Kamrup ...	13,543	13,635	—92
Darrang ...	12,525	11,611	+914
Nowgong	6,372	6,799	—427
Sibsagar ...	17,700	16,704	+996
Lakhimpur	14,565	14,461	+104

The number of male deaths to every 100 female deaths was 111.

8. The total number of deaths recorded during the year in Urban Areas, in which registration is compulsory, was 3,455. This is 137 in excess of the figure for the previous year. The death-rate in 1934 was 17·77 per mille, as compared with 17·06 in the previous year. The quinquennial average was 16·64. The highest death-rate (26·06) was reported from Barpeta town. The increase was due to a large number of deaths recorded under "Fever" and "Other Causes". Other towns reporting high rates of mortality were Golaghat (25·59), Haflong (24·90), North Lakhimpur (22·64) and Tezpur (21·33). Low rates were recorded in Doom Dooma (7·89), Tinsukia (9·50) and Silchar (11·63). These low rates were due either to better health conditions prevailing during the year or to defective registration. In the undermentioned table is given the number of deaths recorded under each of the main heads of mortality for the years 1933 and 1934 :—

Head of mortality.	1934.	1933.	Increase or decrease in 1934.
1	2	3	4
Cholera ...	20	31	—11
Small-pox	6	13	—7
Fevers ...	1,043	980	+63
Dysentery and Diarrhoea	203	337	—34
Respiratory diseases ...	490	412	+78
Injuries ...	138	120	+18
All other causes	1,455	1,425	+30
Total ...	3,455	3,318	+137



9. The total number of deaths registered in rural areas in the province during the year under report was 152,246 or 19·69 per mille of population, as compared with 1,57,736 or 20·40 per mille of population in the preceding year. The quinquennial average was 18·96. The number of deaths in rural circles under each of the main heads of mortality for the years 1933 and 1934 is contrasted in the subjoined table :—

Head of mortality.	1934.	1933.	Increase or decrease in 1934.
1	2	3	4
Cholera ... ..	1,884	5,477	—3,593
Small-pox ... ..	200	234	—34
Fevers ... ..	100,736	102,910	—2,174
Dysentery and Diarrhoea ... ..	7,892	8,930	—1,038
Respiratory diseases ... ..	5,950	5,032	+ 918
Injuries ... ..	2,179	1,982	+ 197
All other causes ... ..	33,405	33,171	+ 234
Total ... ..	152,246	157,736	—5,490

The highest rate was recorded in the Golokganj circle (36·21) in the Goalpara district. Other circles reporting high rates were Paneri (35·34) in Darrang, Mankachar (32·31) in Goalpara and Kalaigaon (30·77) in Darrang. The lowest rates were recorded in Kaliabor (4·64) in Nowgong, Sorbhog (5·08) in Kamrup, Loharighat (6·81) in Nowgong. These low rates can only be attributable to defective registration.

“Fever” was mainly responsible for the high rates in each of the above noted areas, other contributory causes being “all other causes” in case of Mankachar and Kalaigaon, Dysentery and Diarrhoea and “all other causes” in case of Paneri and “injuries” in case of Golokganj.

10. Mortality was highest (1·80) in the month of December and lowest (1·38) in March. “Fever” was mainly responsible for the highest death-rate in December.

11. Births and Deaths are registered in certain areas only in the hill districts. The birth and death-rates in these areas in 1934 are compared in the subjoined table with those of the preceding year :—

Districts.	Population under registration.	1934.		1933.	
		Birth-rate.	Death-rate.	Birth-rate.	Death-rate.
1	2	3	4	5	6
Khasi and Jaintia Hills ... ..	64,128	25·79	15·48	22·84	14·22
Naga Hills ... ..	3,974	44·51	39·19	41·19	45·17
Lushai Hills ... ..	124,404	41·89	22·37	42·16	27·94
Garro Hills ... ..	190,911	31·50	21·79	29·88	20·15

It will be seen from the above table that the birth-rate in all hill districts, except Lushai Hills, was higher and the death-rate, except in Khasi and Jaintia Hills and Garo Hills districts, lower than that of the preceding year.

*Khasi and Jaintia Hills.*—The total number of births and deaths in the Khasi and Jaintia Hills was 1,654 and 993 respectively. A few cases of Cholera were reported from Mawson and Nonglait villages and these were attended to by the nearest dispensaries. There were no deaths from cholera. There were 14 cases of small-pox in the Shillong Municipality with 2 deaths. Over 12,660 vaccinations were performed within a few days and the disease was rapidly brought under



control. "Fever" was responsible for 514 deaths, "Dysentery and diarrhoea" for 48, "Respiratory diseases" for 154, "Injuries" for 8 and "All Other Causes" for 267. The total number of births and deaths recorded in Shillong in 1934 was 692 and 270 respectively as compared with 532 and 252 respectively in the preceding year. The birth and death rates per 1000 of population were 32.49 and 12.68 as compared with 24.97 and 11.83 respectively in 1933. Five hundred and forty-three boxes of Quinine Treatments were sold during 1934 as compared with 640 in 1933. There was a considerable fall in the incidence of malaria throughout the whole district. The following number of cases and deaths from Infectious Diseases were recorded by the Shillong Municipality in 1934.

Disease.				Cases.	Deaths.	Cured.	Otherwise.
1				2	3	4	5
Tuberculosis	...	...	...	24	21	...	3
Enteric	...	...	...	23	3	20	...
Small-pox	...	...	...	14	2	12	...
Diphtheria	...	...	...	11	1	10	...
Leprosy	...	...	...	7	...	...	7
Cholera	...	...	...	3	...	3	...
Kala-azar	...	...	...	5	3	2	...
Blackwater fever	...	...	...	1	1	...	...

Out of the 24 cases of Tuberculosis, 15 cases were among the indigenous population and the other cases came from outside. The sources of infection in regard to Enteric, Small-pox, Cholera, Leprosy, Kala azar and Blackwater fever were from outside. In August and September, Influenza prevailed in mild epidemic form in Shillong. The water-supply and conservancy of the station requires much improvement.

*Naga Hills.*—In the Naga Hills district, vital statistical occurrences are registered only in Kohima town and Dimapur rural circle, the combined population of which is 3,974. The birth and death rates, as given against this district, do not therefore accurately indicate the health of the whole district. The whole district was free from cholera and small-pox. The total number of deaths were 177 of which "Fever" was responsible for 117 deaths. Anti-malarial measures in Kohima and Dimapur are in progress. A total of 80 packets and 6 tubes of Quinine were sold in this district during the year.

*Lushai Hills.*—The total number of births and deaths was 5,211 and 2,783 respectively. The higher birth-rate and the lower death-rate indicate an improvement in the general health of the district during the year under review. There were 17 cases of cholera in Lungleh Subdivision with 8 deaths. The total number of persons inoculated against cholera was 3,149. The campaign against syphilis was as usual, carried out during the year under report with satisfactory results. Twenty-eight cases of Yaws were treated during 1934 against 5 in 1933.

*Garro Hills.*—The birth-rate was higher and the death-rate lower than during the preceding year. The birth-rate (31.50) was the highest ever recorded in this district. The total number of deaths was 2,783 against 3,847 in 1933. "Fever" was responsible for 1,074 deaths. There were 13 cases of cholera with 11 deaths. Infection was introduced from the Goalpara district. There were 7 deaths from small-pox. A total of 174 lepers were treated in the Tura leper colony.

*Sadiya Frontier Tract.*—The total number of births and deaths recorded during the year under review was 609 and 419 against 603 and 471 respectively in the preceding year. The largest number of deaths (351) was recorded under "Fever." There was an outbreak of Influenza in the Pasighat Subdivision with 46 cases and 2 deaths. There was one case each of Small-pox and Enteric fever in the Sadiya town. Fifty packets of Quinine treatments were sold during the year.

*Manipur State.*—Births and deaths are not recorded in this State. There were 3 cases of small-pox with no deaths during the year. There was no case of cholera. A total of 190 lepers were treated during the year. Forty parcels of Quinine treatments were sold during the year under report.



12. The subjoined table shows the birth and death rates reported from Tea Estates during the year 1934 as compared with those for 1933.

Districts.	Birth-rate.		Death-rate.	
	1934.	1933.	1934.	1933.
1	2	3	4	5
Cachar ... ..	39.01	36.46	24.31	23.38
Sylhet ... ..	34.32	31.54	19.45	16.93
Goalpara ... ..	32.43	35.96	19.31	20.94
Kamrup ... ..	23.18	23.31	20.93	13.62
Darrang ... ..	25.72	26.53	41.15	14.23
Nowgong ... ..	35.36	32.44	19.83	17.49
Sibsagar ... ..	41.00	43.77	26.60	23.36
Lakhimpur ... ..	38.40	32.24	25.97	22.82
Total ... ..	38.67	34.47	24.46	20.75

The birth and death rates on Tea Estates were 38.67 and 24.46 as compared with 34.47 and 20.75 respectively in the previous year. Births and deaths on Tea Estates are in excess of the Provincial rates, which are 30.62 and 19.64 respectively. The total number of births on Tea Estates in 1934 was 37,176 and the total number of deaths 23,517, as compared with 33,620 and 20,244 respectively in the previous year. The largest number of deaths (10,263) under "Other Causes" was followed by 4,625 under "Fevers," 4,456 under "Respiratory Diseases," and 3,758 under "Dysentery and Diarrhoea."

A total of 86 deaths from *kala azar* was returned from Tea Estates in 1934 against 60 in 1933. As usual, Tea Estates obtained their supplies of Urea-stibamine at concession rates. A total of 104 deaths from cholera and 34 deaths from small-pox were reported from Tea Estates during the year under report.

13. The total number of births and deaths registered within railway limits during the year 1934 was 84 and 134 as compared with 115 and 143 respectively in the preceding year. As in the previous year, the largest number of births and deaths was returned from Lakhimpur.

*Mortality according to Sex.*—A total of 81,947 males and 73,754 females died in 1934 against 84,464 males and 76,590 females in the preceding year. The death-rates 19.57 for males and 19.71 for females were less by .60 for males and by .76 for females than in the previous year, but were in excess by .80 for males and by .66 for females for the previous quinquennium. The female death-rate exceeded the male death-rate in 5 districts. The highest death-rate for males (24.31) was again returned from the Goalpara district, followed by Darrang (23.31) in regard to females. The lowest death-rates for both sexes *viz.*, 11.10 for males and 11.33 for females, were returned from the Nowgong district as in the previous year.

*Mortality according to Class.*—Classified according to classes, 1,453 Christians, 87,823 Hindus, 54,082 Muhammadans, 184 Budhists and 11,445 other classes died during the year 1934. The death-rates per mille are shown by classes in the subjoined table.—

Classes.	Ratio of deaths per mille, 1933.	Ratio of deaths per mille, 1934.	Difference.
1	2	3	4
Christians ... ..	16.02	18.47	+ 2.45
Hindus ... ..	18.18	18.19	+ .1
Muhammadans ... ..	21.40	19.71	— 1.69
Budhists ... ..	18.00	16.80	— 1.20
Other classes ... ..	49.20	45.47	— 3.73

The highest death-rate among Hindus (21.38) was registered in Sylhet and that for Muhammadans (22.98) in the Goalpara district. The lowest rates, 12.04, and 7.72 respectively, for these two principal communities were returned from Nowgong.



*Mortality according to age.*—The rate of mortality by sexes in different age-groups and the excess or defect of female death-rates are shown in the table below :—

Age periods.	1934.		Excess or defect of female death-rate.
	Male.	Female.	
1	2	3	4
Under one year ... ..	174·11	155·96	—18·15
1—5 ... ..	55·13	71·92	+ 16·79
5—10 ... ..	14·02	17·54	+ 3·52
10—15 ... ..	4·62	5·17	+ ·55
15—20 ... ..	3·74	6·06	+ 2·32
20—30 ... ..	17·46	25·57	+ 8·11
30—40 ... ..	15·72	15·32	+ ·40
40—50 ... ..	12·44	9·23	— 3·21
50—60 ... ..	12·36	8·19	— 4·17
60 years and upwards ... ..	72·40	52·08	—20·32
Total ... ..	19·57	19·71	+ ·14

The rate of mortality among infants for the year 1934 was higher than that for 1933 by ·7. It will appear that the highest mortality was recorded amongst infants under one year and the lowest amongst males between 15-20 years of age and amongst females between 10 to 15 years.

The following table shows the deaths and death-rates amongst infants calculated on the births for the last ten years :—

Year.	Births.			Death of infants.			Death-rate of infants.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10
1924 ...	110,107	102,648	212,755	21,636	17,671	39,307	196·49	172·15	184·75
1925 ...	103,009	96,252	199,261	19,009	15,733	34,742	184·53	163·45	174·35
1926 ...	108,967	102,266	211,233	21,029	17,403	38,432	192·98	170·17	181·94
1927 ...	107,461	99,828	207,289	19,253	16,266	35,509	179·16	162·94	171·35
1928 ...	110,774	103,283	214,057	20,233	16,587	36,820	182·65	160·59	172·01
1929 ...	116,177	108,417	224,594	19,374	15,987	35,361	166·76	147·46	157·44
1930 ...	110,400	104,345	214,835	20,166	17,310	37,476	182·66	165·75	174·44
1931 ...	115,139	107,867	223,006	18,465	15,624	34,089	160·37	144·84	152·86
1932 ...	122,845	115,474	233,319	20,398	16,918	37,316	166·05	146·51	156·58
1933 ...	126,882	119,236	246,118	21,903	18,328	40,231	172·62	153·71	163·46
1934 ...	125,740	117,016	242,756	21,893	18,250	40,143	174·11	155·96	165·36

The infant mortality rate of the Province in 1934 was higher than that of the years 1929, 1931, 1932 and 1933, but was lower than that of any of the previous years. Of the 242,756 infants born during the year 40,143 died. The largest number (20,632) died within one month of birth. A total of 13,131 died in the age period over one month but not exceeding 6 months and 6,380 died in the period over six months but not exceeding 1 year. In the following table the infant mortality rate for Assam is compared with that of other Provinces in India.

Provinces.	Rates.
Assam ... ..	165·36
Bengal ... ..	189· 2
Bihar and Orissa ... ..	140·95
Central Provinces ... ..	253·47
Madras ... ..	192·68
Burma ... ..	219·39
Bombay ... ..	167·37
United Provinces ... ..	184·64
Punjab ... ..	187·40
North West Frontier Province ... ..	134·29



The Infant Mortality rate in Assam for 1934 compares favourably with that of other Provinces. The heavy mortality amongst infants is due in very large measures to immaturity and ignorance of the mother, to improper feeding, and to exposure of infants to insanitary surroundings. The high infant mortality rate indicates that, to save the child population, vigorous educational measures are necessary in regard to the care of infants.

The number of still births recorded during the year under review was 8,682 as compared with 9,395 in the previous year. The percentage of still births to live births was 3.57 in 1934 against 3.81 in 1933.

A chart showing the Infant Mortality rate in Assam from 1912 to 1934 is attached.

14. The statement below shows the defects in registration of vital occurrences during the year 1934 in Compulsory Urban Areas as ascertained by the Vaccination Inspecting staff.

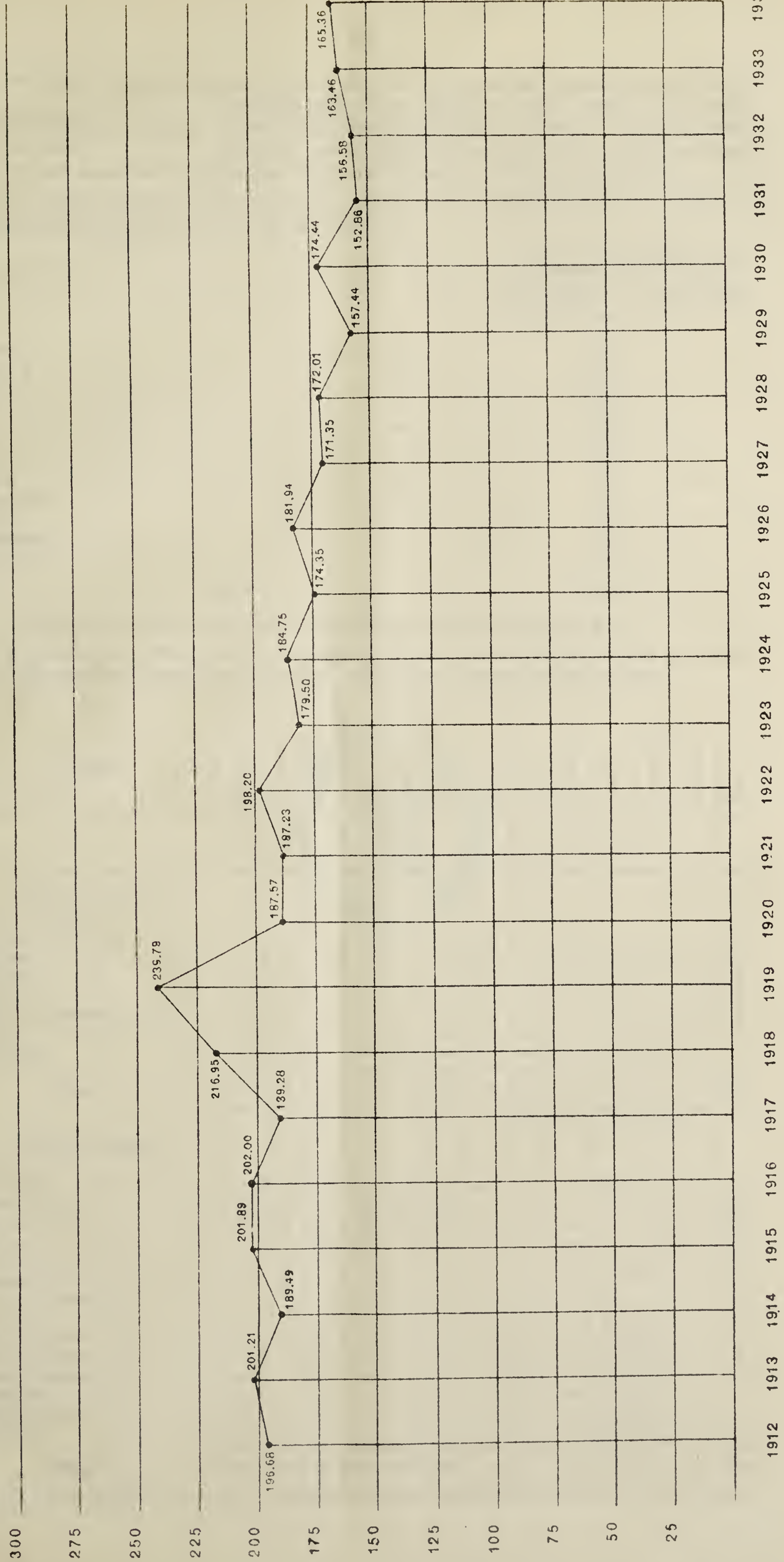
Municipalities.	Unregistered vital occurrences during 1934		Recorded vital occurrences.		Percentage of omissions.	
	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
1	2	3	4	5	6	7
Silechar ...	7	...	250	153	2.80	...
Hailakandi ...	1	...	74	35	1.35	...
Haflong ...	14	1	52	28	26.92	3.57
Sylhet ...	15	5	594	318	2.53	1.57
Karimganj ...	14	4	201	73	6.96	5.48
Maulvi Bazar ...	19	...	130	64	14.61	...
Habiganj ...	17	3	263	172	6.46	1.74
Sunamganj ...	4	1	173	87	2.31	1.15
Dhubri ...	7	2	321	237	2.18	.84
Goalpara ...	...	...	188	83	...	...
Gauripur ...	...	...	160	84	...	...
Gauhati ...	39	8	739	399	5.27	2.01
Barpeta ...	27	3	630	47	4.28	6.38
Polashbari ...	10	8	156	76	6.41	10.52
Tezpur ...	8	8	317	200	2.52	4.00
Mangaldai ...	6	4	47	28	12.77	14.28
Nowgong ...	12	9	385	213	3.12	4.22
Jorhat ...	13	2	73	47	17.81	4.25
Sibsagar ...	11	5	254	53	4.33	9.43
Golaghat ...	17	5	182	119	9.34	4.20
Nazira ...	4	1	128	35	3.12	2.86
Dibrugarh ...	11	3	233	86	4.72	3.49
North Lakhimpur ...	3	2	86	46	3.49	4.35
Doom Dooma ...	5	7	14	13	35.71	53.84
Tinsukia ...	10	3	77	33	12.98	9.09
Shillong ...	2	2	690	268	.29	.74

In the 23 Municipal Towns where registration is compulsory, a total of 396 persons were prosecuted for failing to report Vital Occurrences during the year. Of this number 291 persons were convicted with fines which amounted to Rs. 257-4-0.

15. The Vaccination Inspecting Staff verified the records of 52,786 births and 31,106 deaths in rural areas in 1934, as compared with 51,658 and 30,427 respectively in 1933. The percentage of omissions detected was 4.94 in respect of births and 3.03 in respect of deaths as compared with 5.12 and 2.97 respectively in the preceding year. The district of Sylhet as in the previous year, stood first with 36,449 entries tested, followed by Lakhimpur with 8,705 and Nowgong with 7,903, Darrang stood last with 3,257 entries tested in 1934.

Only 52,786 births and 31,106 deaths were verified during the year out of a total of 2,42,756 births and 1,55,701 deaths yielding the poor percentages of 21.74 and 19.91 respectively. More extensive and detailed verification is not possible unless the Vaccination Inspecting Staff is increased.

Infantile Mortality (per 1,000 of Births) in the Province of Assam  
from 1912 to 1934







16. There was no change in the Agencies employed for the collection of Vital Statistics either in urban or rural areas. As usual, General accuracy of Vital Statistics and improvements affected Weekly Epidemic Reports and Monthly Vital Statistical Returns were published regularly in the Provincial Gazette and in certain local papers for the information of the general public.

17. The statement below shows the number of coolies that left for Assam by different routes month by month in 1934 :—

Month.	Total number of immigrants left for Assam during the year 1934.					
	Via Santahar, Amingaon Rangiya.			and Chandpur.		
January	...	...	...	...	...	7,871
February	...	...	...	...	...	14,679
March	...	...	...	...	...	11,908
April	...	...	...	...	...	7,371
May	...	...	...	...	...	4,261
June	...	...	...	...	...	2,842
July	...	...	...	...	...	1,116
August	...	...	...	...	...	414
September	...	...	...	...	...	281
October	...	...	...	...	...	369
November	...	...	...	...	...	442
December	...	...	...	...	...	909
Total	...	...	...	...	...	52,963

A total of 347 emigrants were taken ill *en route*, of whom 24 died.

The statement below shows the number of sick coolies treated month by month in the Emigration Hospitals at Gauhati and Tezpur during the year 1934 :—

Disease.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Tezpur hospital.</i>													
Conjunctivitis	2	...	...	...	...	...	...	...	...	...	...	...	2
Influenza	...	2	5	2	...	2	...	...	...	...	...	...	11
Dysentery	...	...	1	1	...	...	...	...	...	...	...	...	2
Malaria	...	...	1	...	1	...	1	...	...	...	...	...	3
Pyrexia of uncertain origia	...	...	1	...	...	...	...	...	...	...	...	...	1
Mumps	...	...	1	...	...	...	...	...	...	...	...	...	1
Chickenpox	...	...	...	...	...	...	1	...	...	...	...	...	1
Total	2	2	9	3	1	2	2	...	...	...	...	...	21
<i>Gauhati hospital.</i>													
Small-pox	...	...	1	...	...	...	...	...	...	...	...	...	1
Measles	...	2	6	2	1	...	...	...	...	...	...	...	11
Conjunctivitis	12	4	9	7	18	24	...	...	...	...	...	...	74
Malaria	8	7	20	16	9	3	...	...	...	...	1	...	64
Influenza	2	12	48	7	...	...	...	...	...	...	...	...	69
Intestinal colic	...	1	...	1	...	...	...	...	...	...	...	...	2
Broncho Pneumonia	...	2	1	1	...	...	...	...	...	...	...	...	4
Dysentery	...	2	...	...	...	...	...	...	...	...	...	...	2
Puerperal fever	...	1	...	...	...	...	...	...	...	...	...	...	1
Foreign body-eye	...	...	1	...	...	...	...	...	...	...	...	...	1
Angina Pectoria	...	...	1	...	...	...	...	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	1	...	...	...	...	...	...	1
Ankylstomiasis	...	...	...	...	...	...	...	...	...	...	...	1	1
Diarrhoea	2	5	3	2	...	...	...	...	...	...	...	...	12
Total	24	36	90	36	28	28	...	...	...	...	1	1	244



18. No new railway construction was undertaken in Assam during the year either by the Eastern Bengal or Assam-Bengal Railways. Railway Coolie Camps. There were four coolie camps, viz. Dittockcherra Ballast and Boulder siding, Maibong Ballast and Boulder siding camp in Cachar district, Jagiroad Ballast quarry in Nowgong, and Bahubor quarry in Sibsagar district, in connection with old lines. The population of these camps ranged from 329 to 771. *Kutchahats* were provided and their surroundings were kept clean. Sweepers were employed for conservancy. There was no epidemic of cholera or small-pox in any of the camps but malaria was prevalent in the Dittockcherra Ballast and Boulder siding camp. One Hospital Assistant and one Compounder were kept for treatment of diseases.

CHAPTER III.

THE STATE OF PUBLIC HEALTH AND THE HISTORY OF CHIEF DISEASES.

19. The data recorded in the preceding paragraphs will indicate that the state of Health generally in the Province during the year under review was satisfactory. Deaths under all heads of mortality, with the exception of "Injuries" and "Other Causes" were smaller during the year 1934.

*Chief Causes of mortality.*—A total mortality of 1,55,701 occurred during the year, viz.—1,904 for Cholera, 206 for Small-pox, 101,779 for Fever, 8,195 for Dysentery and Diarrhoea, 6,440 for Respiratory Diseases, 2,317 for Injuries and 34,860 for "All Other Causes." The sub-joined table shows the death-rates per mille from the chief causes of mortality during 1934, as compared with the decennium ending 1933.

Diseases:	1924-33.			1934.		
	Urban.	Rural.	Combined.	Urban.	Rural.	Combined.
1	2	3	4	5	6	7
Cholera ...	·58	1·12	1·11	·10	·24	·24
Small-pox ...	·14	·85	·34	·03	·03	·03
Plague ...	...	...	...	...	...	...
Fever ...	5·15	12·18	12·01	5·36	13·03	12·84
Dysentery and Diarrhoea ...	2·37	1·17	1·20	1·56	1·02	1·03
Respiratory diseases ...	2·17	·69	·72	2·52	·77	·81
Injuries ...	·50	·24	·25	·71	·28	·29
All other causes ...	6·46	4·00	4·06	7·48	4·32	4·40
Total ...	17·38	19·75	19·69	17·77	19·69	19·64

The death rate for the year 1934 was less than the average rate by ·5.

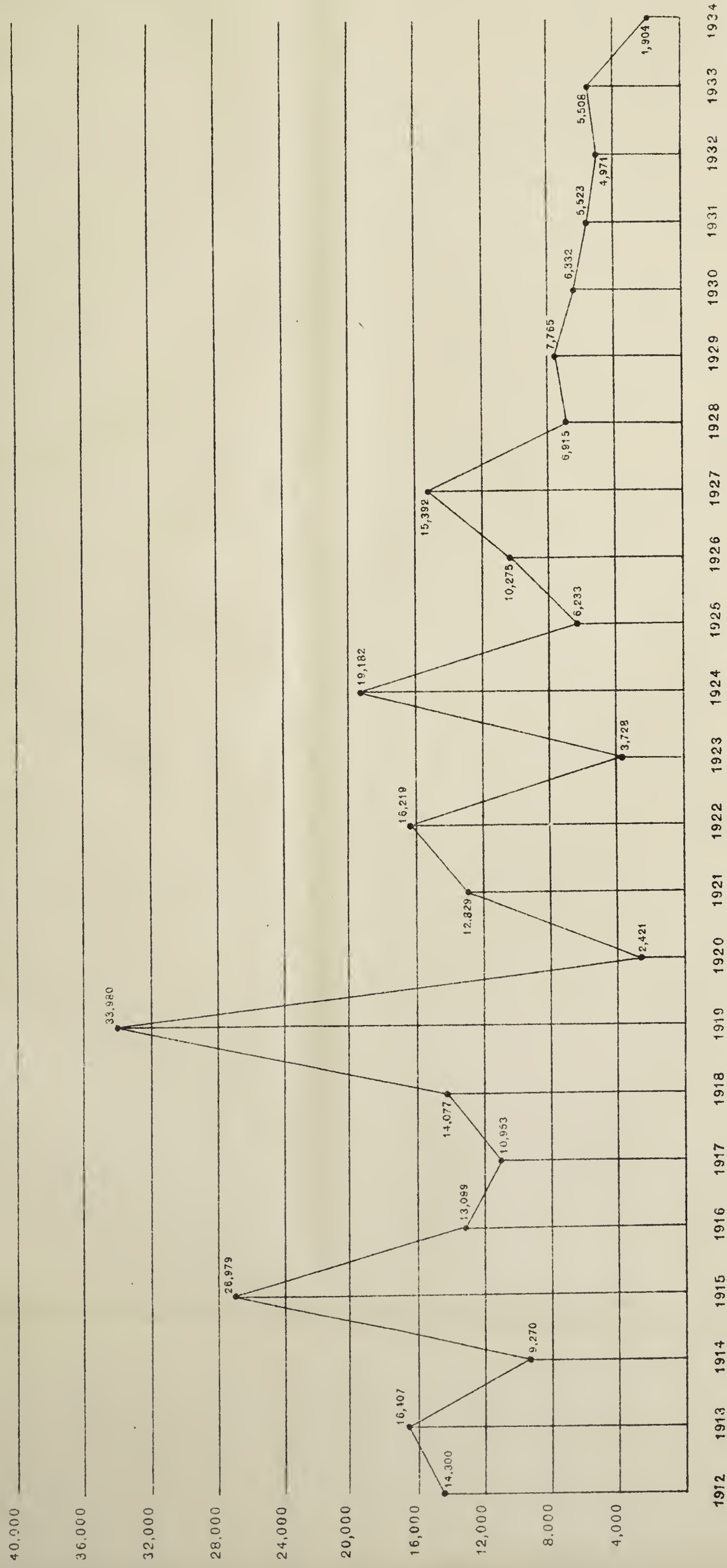
20. The total number of deaths from cholera reported during the year was 1,904 as compared with 5,508 in 1933. The death-rate per 1,000 of population was ·24 against ·69 in the preceding year. The decennial average was 1·11 as shown in the sub-joined table.—

Districts.	Death-rate per mille.	
	1924-33.	1934.
Cachar ...	1·18	·03
Sylhet ...	1·46	·44
Goalpara ...	1·17	·48
Kamrup ...	1·83	·09
Darrang ...	·78	·05
Nowgong ...	·77	·04
Sibsagar ...	·37	·09
Lakhimpur ...	·18	·05
Total ...	1·11	·24

# CHART NO II

Mortality from Cholera in Assam

from 1912 to 1934







The largest number of deaths (596) occurred in December and the lowest (33) in October. The highest death-rate (48) was reported from the Goalpara district followed by Sylhet (44). The disease was prevalent in the Sylhet district more or less throughout the year. The district of Goalpara was practically free from cholera until September. In October, however, cholera was first reported from a village in the Bijni thana circle. Infection was brought to this district by a Nepali herdsman and spread by contamination of water supplies and by human agency to both banks of the Brahmaputra. Besides the Epidemic Unit staff of the district, consisting of 3 Sub-Assistant Surgeons and 6 Disinfectant Carriers, the Epidemic Unit staff of the Kamrup district and all available Medical men of both the Public Health and Medical Departments were concentrated in the affected areas. They were employed on mass inoculation of the people in the infected and neighbouring villages, and the disinfection of water supplies. Both the Assistant Directors of Public Health visited the infected areas and supervised preventive measures. A total of 44,539 person were inoculated. A serious flood occurred in the Nowgong district in June and all preventive measures against the outbreak of any epidemic disease were taken. Bacteriophage was distributed freely, water supplies were disinfected and inoculation with cholera vaccine was given to those who asked for it. Floods also occurred during the same month in the Sylhet district and the Assistant Director of Public Health, Surma Valley and Hill Division was detailed to the affected areas.

Deaths from cholera were reported from 84 out of 147 registration circles and from 725 villages out of 28,333 in the Province.

The amount of cholera vaccine issued in the Province since 1925 is shown below :—

1925	...	...	...	...	103,930 c. cs.
1926	...	...	...	...	154,760 „
1927	...	...	...	...	419,880 „
1928	...	...	...	...	237,773 „
1929	...	...	...	...	356,047 „
1930	...	...	...	...	220,532 „
1931	...	...	...	...	170,820 „
1932	...	...	...	...	169,317½ „
1933	...	...	...	...	451,884 „
1934	...	...	...	...	171,117 „

A total of 871,316 doses of Bacteriophage was issued during the year under report of which 60,231 was issued to Tea Gardens. Bacteriophage is being experimented with in the Nowgong district and in the Habiganj subdivision of the Sylhet district. In these two areas no cholera vaccine whatsoever is administered. As in past years, five mobile Epidemic Units, each consisting of three Sub-Assistant Surgeons and 6 Disinfectant Carriers, were employed, two in the Sylhet district and one in each of the districts of Goalpara, Kamrup and Nowgong. Their services are utilised throughout the Province whenever and wherever required. They deal with outbreaks of all diseases but more especially with outbreaks of cholera, small-pox and malaria. The units in Nowgong and Habiganj are fully employed in the Bacteriophage experiment and consequently their services are not available for other Public Health duties. The establishment of Epidemic Units has been more than fully justified and the provision of more such units is very real and much overdue.

Chart No. II showing the Provincial mortality from Cholera from 1912-1934 is enclosed.

21. A total of 104 deaths from cholera were reported from Tea Estates during 1934 as compared with 277 in the preceding year, the corresponding ratios per mille being .11 and .28 respectively.

22. The total number of deaths from Small-pox during the year under review was 206 as compared with 247 in 1933, showing a decrease of 41 deaths. The gradual fall in the mortality from this disease is due to the prompt preventive measures taken to deal with



isolated small outbreaks and to the thoroughness of vaccination. The death-rate was .03 per mille as in the previous year and .34 the mean of the previous ten years as shown in the table below :—

Districts.					Death-rate per mille.	
					1924-33.	1934.
Cachar	...	...	...	...	.22	...
Sylhet	...	...	...	...	.34	.02
Goalpara	...	...	...	...	.48	.01
Kamrup	...	...	...	...	.41	.08
Darrang	...	...	...	...	.17	.07
Nowgong	...	...	...	...	.03	.01
Sibsagar	...	...	...	...	.66	.01
Lakhimpur	..	...	...	...	.16	.01
Total	...	...	...	...	.34	.03

A total of 87 villages out of 28,333 villages were affected with small-pox in 1934. Mortality from small-pox was reported from 49 out of a total of 147 rural circles. The highest number of deaths (30) occurred in each of the months of April and December and the lowest (4) in October. Two districts yielded death-rates from small-pox above the Provincial average (.03) per mille. Kamrup with its death-rate of .08 per mille heads the list, followed by Darrang with .07. Only 6 deaths were reported from towns and 200 from rural circles. Fifteen children below 1 year of age, and 14 between one and 10 years of age died in 1934 from small-pox against 24 and 31 respectively in 1933. The remaining deaths (177) occurred amongst adults.

Chart No. III showing the Provincial mortality from small-pox from 1912 to 1934 is attached.

23. In a total of 25 towns, only two returned a mortality from small-pox namely Goalpara (.31) and Barpeta (.29). Amongst rural circles, Polashbari (.41) in Kamrup heads the list followed by Bokakhat (.23) in Sibsaagar, Boko (20) in Kamrup and Kulaura (.18) in Sylhet. There is no special hospital in Assam for the isolation and treatment of small-pox. Particulars of cases treated in the Infectious Diseases Hospitals, where such exist, are given in the appended table.—

Municipal Town.	Number of small-pox patients treated.	Vaccinated as evidenced by presence of one or more vaccination cicatrices.	Stated to have been successfully vaccinated but no vaccination cicatrices present.	Stated to be unvaccinated (or vaccinated unsuccessfully) and no cicatrices present.	Previously unvaccinated but vaccinated during the incubation of small-pox.	Stated to have been successfully vaccinated.
1	2	3	4	5	6	7
Dhubri ...	...	...	...	...	...	...
Shillong ...	11	...	...	...	...	...
Gauhati ..	2	2	...	...	...	...
Tezpur ...	...	...	...	...	...	...

24. No case of Plague was reported from any district in 1934.

25. During the year 1934 fevers were responsible for 1,01,779 deaths as compared with 1,03,890 in 1933. This shows a decrease of 2,111. The death-rate per mille was 12.84 as compared with 13.10 in the preceding year and 12.01 during the last decennium as shown in the table below :—

Districts.					Death-rate per mille.	
					1924-33.	1934.
Cachar	...	...	...	...	10.59	9.74
Sylhet	...	...	...	...	12.19	12.93
Goalpara	...	...	...	...	20.64	21.95
Kamrup	...	...	...	...	10.32	11.33
Darrang	...	...	...	...	12.69	13.87
Nowgong	...	...	...	...	10.48	9.01
Sibsagar	...	...	...	...	8.96	11.07
Lakhimpur	...	...	...	...	8.71	10.16
Total	...	...	...	...	12.01	12.84

## Mortality from Small-pox in Assam

from 1912 to 1934

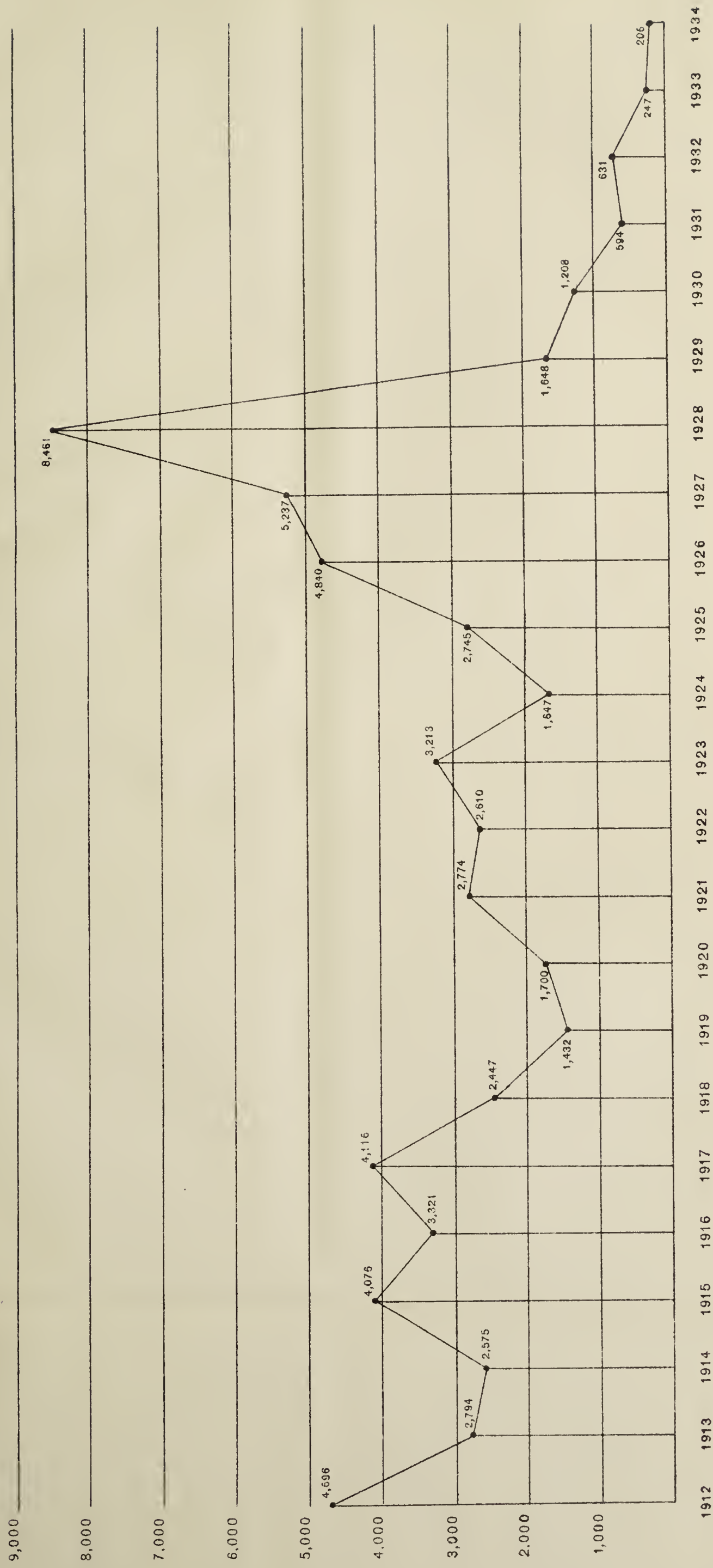
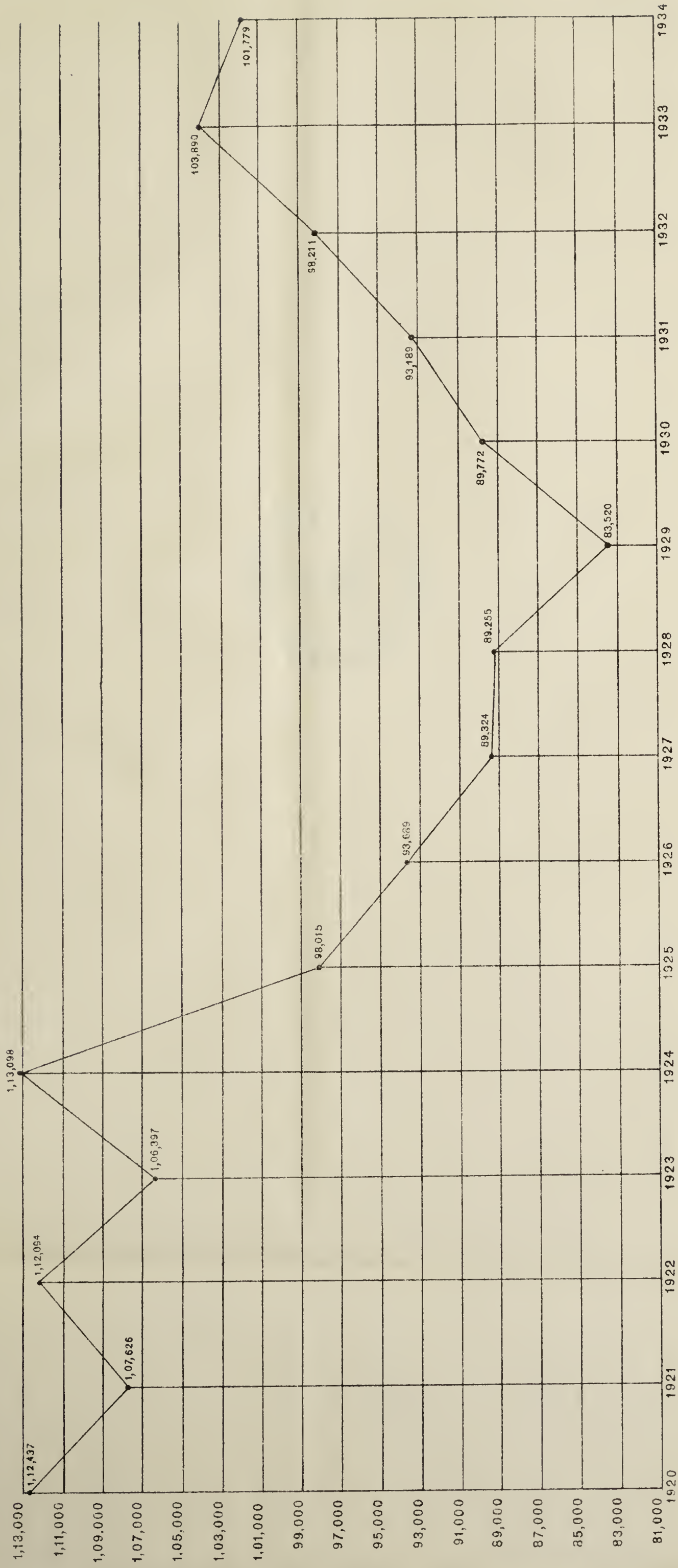






CHART NO. IV  
Total number of deaths due to fevers







"Fevers" accounted for 65·37 per cent. of the total provincial mortality as compared with 61·51 per cent. in the previous year. These figures include deaths from Malaria and *Kala Azar* and also from various diseases, which have fever as their predominant symptom. The largest number of deaths (10,127) was recorded in June and the smallest (6,956) in March. As in the previous year the highest mortality rate from "Fever" was recorded in the district of Goalpara (21·95) and the lowest in Nowgong (9·01). As in the previous year, Quinine and Cinchona valued at Rs. 5,000 were distributed free to indigent malaria patients throughout the Province.

Chart No. IV showing the Provincial mortality from "Fevers" for a series of years is attached.

## 26.—DYSENTERY AND DIARRHŒA.

Districts.	Death-rate per mille.	
	1921-33.	1934
Cachar	2·14	1·09
Sylhet	1·20	·93
Goalpara	·27	·17
Kamrup	·59	·39
Darrang	1·59	1·31
Nowgong	·52	·55
Sibsagar	1·81	2·15
Lakhimpur	1·90	2·01
Total	1·20	1·03

The total number of deaths registered from Dysentery and Diarrhœa during the year was 8,195 as compared with 9,267 in 1933. The corresponding death-rates for the two years were 1·03 and 1·17 respectively and the decennial average 1·20. The highest number of deaths (815) was recorded in November and the lowest (534) in March. The highest mortality rate was returned from Sibsaagar district (2·15) followed by Lakhimpur (2·01) and Darrang (1·31). The lowest rate was recorded in the Goalpara district (·17). The number of deaths registered under "Dysentery and Diarrhœa" was less by 1,072 than that of the previous year. Bacteriophage is being largely used in the Nowgong district since December 1929. The effect of Bacteriophage on dysentery and Diarrhœa in this district does not appear to be very striking as the figures of mortality given below indicate:—

1929	...	...	...	...	...	203
1930	...	...	...	...	...	277
1931	...	...	...	...	...	316
1932	...	...	...	...	...	248
1933	...	...	...	...	...	322
1934	...	...	...	...	...	310

27. A total of 6,440 deaths occurred under this head during the year under review as compared with 5,444 in the preceding year,

Respiratory Diseases. yielding death-rates of ·81 and ·69 respectively. The quinquennial average was ·72. The highest mortality from Respiratory Diseases was registered in March (658) and the lowest in May (462). As in the previous year, Lakhimpur district heads the list with a death-rate (2·10) followed by Cachar (1·64) and Sibsaagar (1·35). The lowest rate was recorded in the Goalpara district (·15).

28. The mortality from this disease is included under "Fevers." The total number of deaths from sporadic cases of Influenza during 1934 was 66 against 73 in the preceding year.

Mild outbreaks were reported from Sibsaagar and Cachar as in the previous year. Other districts were free from this disease during the year under review.

29. During the year, 2,317 deaths from Injuries and 34,860 from "All other Causes" were returned as compared with 2,102 and

Other causes. 34,596 respectively in the preceding year. The corresponding death-rates were ·29 and 4·40 in 1934 and ·27 and 4·33 respectively in 1933.

*Typhoid Fever.*—A total of 42 deaths were reported from 10 towns of the Province, viz, Silchar (3), Sylhet (7), Karimganj (1), Gauhati (4), Dhubri (4), Tezpur (2), Nowgong (5), Jorhat (1), Dibrugarh (12) and Shillong (3). Protective T. A. B., inoculations were administered to contacts and other measures were taken to check the spread of the disease.



30. Nil.

Beri Beri.

31. During the year under report a total of 3,089 cases of this disease were brought under treatment with striking results in the Province. The disease is very widely prevalent and there is every indication that it is showing a tendency to spread. An Editorial published in the Indian Medical Gazette in August 1930, quoted below, is of considerable importance. It runs as follows:—

“ From recent reports of the prevalence of Yaws in Northern Burma, the Chittagong Hills Tracts and in different parts of Assam, it looks as if Yaws will be the next epidemic disease with which the Public Health Authorities in these areas will have to deal. It is therefore absolutely necessary to carry out a vigorous campaign in all known infected areas in order to prevent the disease in these localities from assuming severe epidemic proportions.” The Public Health Department dispensaries undertake the treatment of Yaws *pari passu* and in conjunction with the treatment of *Kala azar*, Leprosy etc.

During the year new additional centres for the treatment of the disease were opened in the Kamrup district at the Nagarbara Public Health Department dispensary and at the Local Board dispensaries at Loharghat and Khetri. The disease is found generally prevalent in the foot hills in this district amongst Mikirs, Lalungs, Kacharis, Garos and Khasis who normally inhabit these submontane areas. In this district, a total of 749 cases were treated during the year. In the Goalpara district two new centres, one at Hirapara and another at Dudnai, were opened for the treatment of this disease by the Sub-Assistant Surgeons, Public Health Department. Additional treatment centres were also opened at the Local Board dispensaries at Chapor, Marnoi and Goalpara. A total of 1,826 cases of this disease were brought under treatment during the year. Here too, the disease is found to be widely prevalent in the submontane regions. In the Nowgong district a total of 431 cases were treated in the Public Health Department dispensaries as compared with 334 cases in 1933. In addition, treatment was extended to the Garo Hills district and also to Cachar, where the disease was also found to be prevalent.

32. During 1934, a total of 9,758 cases of Minor Eye Complaints were treated in the Public Health Department dispensaries.

Minor Eye Complaints.

33. During the year, the number of Sub-Assistant Surgeons of the Public Health Department remained the same as in the previous year. The following table shows the number of deaths from this disease from 1924 to 1934:—

Districts.	1924.	1925	1926.	19 27	1928.	1929.	1930.	1931.	1932.	1933.	1934.
1	2	3	4	5	6	7	8	9	10	11	12
Cachar ... ..	2	3	9	12	2	3	2	4	4	2	6
Sylhet ... ..	1,874	2,109	1,320	798	482	429	274	246	296	146	227
Goalpara ... ..	309	453	297	226	166	135	112	121	122	92	61
Kamrup ... ..	1,152	1,120	714	475	241	180	102	160	152	129	151
Darrang ... ..	448	478	474	318	258	241	185	222	155	167	136
Nowgong ... ..	1,479	1,445	839	528	260	178	132	129	132	110	78
Sibsagar ... ..	235	200	170	143	86	87	58	71	78	64	84
Lakhimpur ... ..	13	8	1	5	5	1	2	...	2	4	...
Khasi and Jaintia Hills ... ..	...	8	4	3	4	...	...	...	...	...	4
Naga Hills ... ..	...	1	...	...	...	1	1	...	1	1	...
Lushai Hills ... ..	...	...	1	...	1	...	...	...	1	...	...
Garo Hills ... ..	69	435	346	350	154	149	84	64	43	34	23
Sadiya Frontier Tract ... ..	4	3	1	1	1	1	...	...	1	...	...
Manipur State ... ..	...	2	...	...	...	...	1	...	...	...	...
Total ... ..	5,585	6,365	4,176	2,859	1,660	1,405	953	1,017	987	749	770



The number of *Kala azar* cases treated from 1924 to 1934 are shown in the undermentioned table :—

Districts.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932	1933.	1934.
1	2	3	4	5	6	7	8	9	10	11	12
Cachar ... ..	253	442	333	3,359	394	470	376	370	391	472	529
Sylhet ... ..	16,516	10,934	16,355	10,527	8,988	9,162	6,726	5,512	4,719	4,210	4,612
Goalpara ... ..	5,016	6,003	5,671	3,495	2,316	2,389	1,439	992	1,069	1,159	1,107
Kamrup ... ..	5,780	8,753	7,301	6,445	3,577	2,598	1,814	1,690	2,061	2,223	2,197
Darrang ... ..	3,286	5,262	4,414	4,053	2,228	1,399	1,106	942	665	757	876
Nowgong ... ..	13,625	13,895	9,586	5,008	2,614	2,433	1,440	1,057	1,075	1,663	1,726
Sibsagar ... ..	2,929	3,285	2,658	1,521	1,555	2,387	1,495	1,095	1,269	1,251	1,372
Lakhimpur ... ..	81	99	20	19	28	23	23	3	12	13	18
Khasi and Jaintia Hills ... ..	274	213	198	120	6	...	...	...	...	1	5
Naga Hills ... ..	3	4	2	1	5	9	21	5	16	12	14
Lushai Hills ... ..	...	...	...	...	1	...	...	4	2	1	...
Garo Hills ... ..	985	1,952	2,812	1,828	1,690	2,905	1,905	882	605	850	927
Sadiya Frontier Tract ... ..	...	8	4	3	8	3	2	2	1	2	1
Manipur State ... ..	22	85	31	36	166	35	83	38	53	36	14
Total ... ..	48,770	60,940	49,385	33,415	23,576	23,804	16,430	12,592	11,958	12,650	13,398

The number of deaths from *Kala azar* was larger in 1934 by 21 than that of the preceding year. The number of patients treated was also larger by 748 over 1933. The increase is shared by the districts of Cachar, Sylhet, Darrang, Nowgong, Sibsaagar and Garo Hills. As in the previous year, the attention of Civil Surgeons concerned has been drawn to this fact and they have been asked to report any possible recrudescence of the disease so that steps may be taken at once to deal with the situation. The method of diagnosis and treatment of *Kala azar* was the same as in previous years. Special attention is given in all districts to intensive and detailed surveys in order to detect fresh cases. Villages within a certain radius of dispensaries in *Kala azar* infected districts are surveyed by the Medical officers in charge. In the Cachar district the Sub-Assistant Surgeon deputed for the purpose surveyed Katigora, Hailakandi and Katlicherra areas during the year, visiting 12,550 houses and detecting 75 cases of the disease. Arrangements have been made for the treatment of these cases. During the year under review the number of beds in the Moibong *Kala azar* hospital was reduced from 20 to 10, owing to the fall in the number of patients.

In Sylhet, the number of fresh cases admitted during 1934 was larger by 488 than in 1933. This is attributable to the popularity of *Kala azar* treatment and to more thorough surveys. During the year under report a Public Health Department dispensary was opened at Sakhaity. In Goalpara, thorough and detailed surveys were carried out during the year. In Kamrup, exhaustive and thorough surveys were done for the detection of cases. Two new sub-centres, namely, Panbari under Digaru Public Health Department dispensary and Charali under Polashbari Local Board dispensary were started during 1934. Kamarkuchi Local Board dispensary commenced *Kala azar* treatment during the year under report. In Darrang, the Missamari and Goraimari areas in the Tezpur subdivision were thoroughly surveyed. In Nowgong, as in the previous year, the Railway Hospital at Lumding and the Local Board dispensaries in addition to Public Health Department dispensaries continued to treat *Kala azar* cases. A Public Health Department dispensary was opened at Baithalongsoo during 1934. In Sibsaagar, *Kala azar* surveys were thoroughly carried out during the year. In the Garo Hills, the disease is still prevalent. The total number of cases treated during the year in this district was 927, which was larger by 71 than that in 1933.

The following Assistant Surgeons and Sub-Assistant Surgeons deserve special mention for good work done during the year :—

#### ASSISTANT SURGEONS.

- (1) Dr. P. K. Das, M.B., D.P.H., L.O. (Madras), (2) Dr. D. N. Das, M.B.,  
(3) Dr. U. C. Bordoloi, M.B.



## SUB-ASSISTANT SURGEONS.

(1) Dr. Azizur Rahman, (2) Dr. Nizamur Rahman Mazumdar, (3) Dr. Kameswar Hazarika, (4) Dr. Subodh Chandra Gogoi, (5) Dr. Jadav Chandra Chakravarty (6) Dr. Munawar Khan.

## EPIDEMIC UNIT SUB-ASSISTANT SURGEONS.

(1) Dr. Habibur Rahman, (2) Dr. Ganshyam Das, (3) Dr. Kaziram Das.

34. *Leprosy*.—During the year under report, 52 Public Health Department dispensaries, *viz.*, 21 in Sylhet, 11 in Nowgong, 6 in Darrang, 8 in Kamrup, 4 in Sibsagar and 2 in Goalpara against 45 in 1933, were engaged in the detection and treatment of leprosy. Sub-Assistant Surgeons of the Public Health Department undertake leprosy surveys in conjunction with *kala azar* and other surveys. A total of 2,679 lepers came under treatment in the Public Health Department dispensaries during the year, *viz.*, Sylhet (925), Nowgong (464), Darrang (820), Kamrup (406), Sibsagar (32) and Goalpara (32). In addition, Local Board dispensaries and hospitals and Medical Department dispensaries treated 1,618 lepers during 1934. Treatment, though slow and tedious, is becoming popular and the number of patients is increasing. A contribution of Rs. 200 was received from the Assam Leprosy Relief Committee during the year for the purpose of equipping five more Public Health Department dispensaries.

## CHAPTER IV.

## EPIDEMIOLOGY.

35. The mortality from cholera in Assam during the last ten years has been as follows :—

1924	...	...	...	...	...	19,182
1925	...	...	...	...	...	6,233
1926	...	...	...	...	...	10,275
1927	...	...	...	...	...	15,392
1928	...	...	...	...	...	6,915
1929	...	...	...	...	...	7,765
1930	...	...	...	...	...	6,332
1931	...	...	...	...	...	5,523
1932	...	...	...	...	...	4,971
1933	...	...	...	...	...	5,508
1934	...	...	...	...	...	1,904

The Province was fortunate in that it remained free from any epidemic of the disease during the greater part of the year. Sporadic outbreaks, however, made their appearance in the Assam Valley districts from time to time. In November, however the district of Goalpara was visited by a serious outbreak of cholera in epidemic form. This epidemic involved 194 villages with 1,084 attacks and 599 deaths. All the available resources of the Public Health and Medical Departments were concentrated in combating the epidemic. In the Surma Valley there was no serious epidemic of cholera during the year under review. In December, however, there was an outbreak of cholera in the Habiganj subdivision.

## CHAPTER V.

## FAIRS AND FESTIVALS.

36. In the Cachar district in addition to the usual two Melas, *viz.*, Sidheswar and Bhuban Hill, two other Fairs were held, one at Lalabazar and the other at Latakandi during the year under review. About 9,000 people attended the Sidheswar Mela which lasted for a fortnight. The Bhuban Hill Mela lasted for 3 days and about 8,000 people attended. The Lalabazar Mela was attended by 3,000 people for 3 days and in the Latakandi mela approximately 2,000 people attend and the Mela lasted for 4 days. A section of an Epidemic Unit attended the Sidheswar and Bhuban Hill Melas. All possible sanitary arrangements were made and no case of any epidemic disease was reported from any of them. The Daranga Fair was held as usual in the Kamrup district. A Sub-Assistant Surgeon of the Gauhati Epidemic Unit was deputed to this Mela. There was also a gathering of pilgrims at Kamakhya Hill on the occasion of Hindu Festival "Ambubachi" in the same district. A doctor was deputed to render medical aid. There was no outbreak of epidemic disease. Small fairs were also held in the rural areas of the district during the year under report and Medical Officers were made available when there was public demand. A gathering of approximately 10,000 pilgrims took place at Dhubri in the Goalpara district on the occasion of the Brahmaputra Snan (bathing



in the Brahmaputra river) and adequate arrangements were made by the Dhubri Municipal Board. Temporary latrines were constructed and arrangements were made for the supply of piped and filtered water in the town for the whole day. The district Assistant Surgeon of the Public Health Department with one Sub-Assistant Surgeon of the Medical Department and the Urban Health Officer were directed to look after the sanitary arrangements and to render medical aid. The Parasuram Kunda pilgrimage in the Sadiya Frontier Tract was held on the 14th January 1934. The Sub-Assistant Surgeon in charge Denning Civil dispensary was deputed to the pilgrimage.

## CHAPTER VI.

### URBAN SANITATION.

(Including Notified Areas.)

#### MUNICIPAL WATER SUPPLIES.

37. The number of Municipal Boards and Town Committees in Assam during the year under report was the same as in previous year, *viz.*, 17 Municipal Boards and 9 Town Committees. The total income of these Boards and Town Committees was Rs. 11,95,245-9-4 as against Rs. 12,05,055 in the preceding year. A sum of Rs. 5,23,195-15-9 or 43.77 was spent on sanitary works original and recurring as compared with Rs. 5,35,925 or 44.47 in 1933. As usual, the Director and the Assistant Directors of Public Health inspected the Municipalities and Small Towns and offered advice on Public Health matters. As pointed out in the inspection notes on various municipalities there is yet much room for improvement in every direction in the matter of Public Health of the towns in the Province.

The following Urban Health Officers did good work during the year:—

- (1) Dr. Dinesh Chandra Gupta. (2) Dr. Jatindra Mohan Roy. (2) Dr Khurshed Ali.

The Public Works Department incurred a total expenditure of Rs. 6,717-15-0 on the maintenance of water-supplies, drainage and town improvement as compared with Rs. 5,531 in the preceding year.

## CHAPTER VII.

### RURAL SANITATION.

38. The total expenditure of 19 Local Boards on Public Health during the year 1934 amounted to Rs. 1,41,278-8-0 as compared with Rs. 1,74,557 in the preceding year. Boards should make every endeavour to increase their expenditure on Public Health and especially on rural water supplies. Unless the latter is improved, water-borne diseases must always be present and which will from time to time assume epidemic proportions with dire consequences. The contemplated grant from the Government of India for this purpose will be of great value in this respect. Public Health measures which are extensively carried out in rural areas are protection against cholera by inoculation and against small-pox by vaccination. *Kala azar* treatment measures are being carried out on the usual lines as in previous years. Quinine Reinforced Cinchona tablets for the treatment of malaria are being sold in all village Post Offices and through other accredited agents. Sums of money have also been set aside for the purchase of Quinine and Cinchona Febrifuge for free distribution to the indigent poor in all districts. Treatment of Yaws, Leprosy, Malaria and Minor Eye Complaints is also being undertaken by Public Health Department dispensaries in rural areas with marked success.

## CHAPTER VIII.

39. Malarial Fever is by far the greatest scourge of the Province. It is prevalent throughout the Province in greater or lesser degree at all times in epidemic form. During the year, 665,983 cases of malaria were treated in all hospitals and dispensaries in the plains-districts. Separate mortality figures from malaria are not available. As already noted there were 101,779 deaths from fever and this



is responsible for 65·37 per cent. of the total Provincial mortality during the year. The largest percentage of deaths under "Fevers" is directly attributed to malarial fevers. During the year under review, Quinine Sulphate was replaced by Quinine Reinforced Cinchona Febrifuge and was sold at 0·3 9 per treatment. To bring this preparation within easy reach of all, more Agents for its sale have been appointed. A lump provision of Rs. 24,500 was made by Government to carry out anti-malarial measures in the Province. The Provincial Advisory Malaria Committee held three meetings during the year to consider the relative merits of schemes and to allot funds. Anti-malarial measures were carried out in the following areas :—

*Cachar*—Hailakandi, Haflong, Barkhola and Moibong-Dittockcherra.

*Sylhet*—Sylhet town, Jaintiapur and Haripur.

*Goalpara*—Dhubri, Kachugaon, Abhoyapuri, Gossaigaon-Haltugaon and Gauripur.

*Kamrup*—Gauhati.

*Darrang*—Tezpur, Mangaldai and Tangla.

*Nowgong*—Nowgong, Jajari and Lumding.

*Sibsagar*—Jorhat, Sibsaagar, Golaghat, Moabund and Sycotta.

*Lakhimpur*—Doom Dooma, North Lakhimpur and Tinsukia.

*Naga Hills*—Kohima and Dimapur.

*Khasi and Jaintia Hills*—Shillong and Nongpoh.

*Garro Hills*—Tura.

Anti-malarial operations were carried out in the areas noted below with funds provided by the Government of India :—

*Pasighat*.—The scrub jungles were kept clean and no rain water was allowed to accumulate anywhere. The Moralali stream was cleansed and canalised. The compulsory use of mosquito-nets was enforced on the Assam Rifles and Bamber oil was issued to night sentries.

*Charduar*.—Malariol was sprayed in the breeding places and marshy lands were treated with Paris Green. Prophylactic Quinine was issued to the Coolie corps and positive cases of malaria in hospital and in quarters were treated with Atebrin and Plasmoquine according to the nature of infection.

*Lokra*.—Spraying operations with malariol were continued in the river Mansiri for a distance of a mile and marshy areas and pools were treated with Paris Green.

#### SALE OF QUININE.

40. The subjoined table shows the quantity of Quinine sold, district by district, during the year 1934 as compared with 1933:—

Districts,	Treatment parcels sold in—		Difference.	
	1934.	1933.	Increase.	Decrease.
1	2	3	4	5
Cachar	385	571	...	175
Sylhet	2,033	2,094	...	61
Goalpara	478	434	44	...
Kamrup	1,238	1,215	23	...
Darrang	488	451	37	...
Nowgong	396	288	108	...
Sibsagar	977	901	76	...
Lakhimpur	*160	206	...	46
Khasi and Jaintia Hills	543	640	...	97
Naga Hills	80	76	4	...
Lushai Hills	1,034	1,616	...	562
Garro Hills	41	49	...	8
Sadiya Frontier Tract	52	59	...	7
Manipur State	40	48	...	8
Total	7,965	8,648	292	964

\* Figures up to 31st May 1935 are not available as all records were destroyed by fire.



During the year under report 7,965 parcels of Quinine treatments were sold against 8,648 in the preceding year, showing a decrease of 683 parcels. The decrease is due mainly to a drop in sales by 562 parcels in the Lushai Hills district. The number of malaria cases treated in dispensaries of this district was less by 8,182 cases. This indicates that malaria was less prevalent in the district during the year under review. Up to June, Quinine, was sold at below cost price, *i. e.*, at as. 4-6 per treatment. From July Quinine Reinforced Cinchona Febrifuge in tablet form was substituted and was made available for sale. The drug was sold to the public through the Agency of Post Offices and various other accredited Agents at as. 3-9 per treatment. The number of Agents for the sale of this drug was largely increased in order to bring the treatment within easy reach of all. As in the previous year, owing to the unusual virulence of malarial fever, the undermentioned quantities of quinine and cinchona were obtained for free distribution to indigent malaria patients in the badly infected areas in the plains districts :—

					Quinine sulph.	Cinchona.
					lb. oz.	lb. oz.
Cachar	...	...	...	...	4 0	28 0
Sylhet	...	...	...	...	46 0	66 0
Goalpara	...	...	...	...	16 0	9 0
Kamrup	...	...	...	...	8 0	55 0
Darrang	...	...	...	...	...	40 0
Nowgong	...	...	...	...	20 0	68 0
Sibsagar	...	...	...	...	7 0	25 0
Total					101 0	291 0

A statement showing quantities in lbs. of (a) Quinine and (b) secondary alkaloids of Cinchona distributed free or at reduced price by the Public Health and Medical Departments and other sources during each of the years 1932, 1933 and 1934 is also appended below.



Public Health Department.				Medical Department.				Jail.			
Quinine.				Cinchona.				Quinine.			
Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.
Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.
Cachar ...	4 0 0 0	...	...	...	...	...	...	...	...	...	...
Goalpara ...	39 8 0 0	...	...	...	...	...	...	...	...	...	...
Khasi and Jaintia Hills	...	38 9 0 0	...	...	...	...	...	...	...	...	...
Garos Hills	6 0 0 0	...	...	...	...	...	...	...	...	...	...
Kamrup	26 12 4 0	129 0 0 0	...	...	...	...	...	...	...	...	...
Darrang	10 10 4 0	...	...	...	...	...	...	...	...	...	...
Nowgong	16 4 4 0	...	...	...	...	...	...	...	...	...	...
Sadiya Frontier Tract.	...	...	...	...	...	...	...	...	...	...	...
Lakhimpur	...	...	...	...	...	...	...	...	...	...	...
Sibsagar	4 0 0 0	...	...	...	...	...	...	...	...	...	...
Lushai Hills	...	...	...	...	...	...	...	...	...	...	...
Naga Hills	...	...	...	...	...	...	...	...	...	...	...
Sylhet	159 10 5 0*	56 11 0 0	...	...	...	...	...	...	...	...	...
Total	266 14 1 0	224 4 0 0	446 13 7 32	98 6 0 0	447 8 3 0	580 0 6 0	4 0 0 0	58 1 6 0	23 2 10 0	...	...

Police and Assam Rifles Hospitals.				Local Fund.				Other Departments.			
Quinine.				Cinchona.				Quinine.			
Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.	Free.	On payment.
Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.	Lbs. oz. dr. gr.
Cachar ...	3 7 4 0	...	...	...	...	...	...	...	...	...	...
Goalpara ...	8 0 0 0	...	...	...	...	...	...	...	...	...	...
Khasi and Jaintia Hills.	1 14 0 0	...	...	...	...	...	...	...	...	...	...
Garos Hills	15 0 0 0	...	...	...	...	...	...	...	...	...	...
Kamrup	11 5 2 0	...	...	...	...	...	...	...	...	...	...
Darrang	19 11 4 0	...	...	...	...	...	...	...	...	...	...
Nowgong	4 2 0 0	...	...	...	...	...	...	...	...	...	...
Sadiya Frontier Tract.	...	...	...	...	...	...	...	...	...	...	...
Lakhimpur	...	...	...	...	...	...	...	...	...	...	...
Sibsagar	...	...	...	...	...	...	...	...	...	...	...
Lushai Hills	12 1 0 0	...	...	...	...	...	...	...	...	...	...
Naga Hills	25 8 0 0	...	...	...	...	...	...	...	...	...	...
Sylhet	...	...	...	...	...	...	...	...	...	...	...
Total	101 1 2 0	...	...	26 4 0 0	87 4 6 30	191 1 7 25	...	39 14 4 20	9 0 2 0	...	...

\* Figures for different Departments are not available separately.



## CHAPTER IX.

## MATERNITY AND CHILD WELFARE.

41. Maternity and Child welfare is now receiving more attention in all districts and some subdivisioinal headquarters. A new Child Welfare centre was opened at Jorhat and a Health Welfare worker, trained in the Lady Reading Health School, New Delhi, took up the work during the year. The Lady Kerr Child Welfare centre in Shillong continued to function during the year. A total of 1,954 persons received attention during 1934 as against 1,592 in the previous year. In Nowgong, funds have been collected to start a Child Welfare centre and proposals to start centres in the Garo Hills, Sylhet and Silchar are under contemplation. Good work in the training of *Dais* is being done by the "Nari Sikshasram, Silchar". At Doom Dooma and in North Lakhimpur in the Lakhimpur district interest is being taken in Child Welfare work. There was a mortality of 40,143 amongst infants during 1934, which gives a mortality rate of 165.36. This appalling mortality of 110 infants per day in Assam can confidently be vastly improved but only after the establishment of many more and up-to-date Maternity and Child Welfare centres. The need for a much larger number of fully trained and experienced midwives is very real and much overdue.

## CHAPTER X.

## SCHOOL HYGIENE AND MEDICAL INSPECTION OF SCHOOL CHILDREN.

42. It was not possible during the year for the Assistant Directors to devote that amount of attention to School inspection and hygiene as considered desirable, as these officers were fully occupied on epidemic and flood relief duties. The Assistant Director of Public Health, Surma Valley and Hill Division however found time to inspect a few schools and delivered lectures to the pupils and teachers on health subjects. His inspection remarks on the general sanitary conditions of schools, as usual, were transmitted to the Director of Public Instruction for information and necessary action. Periodical medical examinations of pupils of selected institutions throughout the Province were carried out by the Medical Officers in charge. Remedial measures were suggested and lectures were delivered on general hygiene and sanitation.

## CHAPTER XI.

## HEALTH PROPAGANDA.

43. Public Health Propaganda with the aid of Magic Lantern demonstration was revived during the latter part of the year. Expenditure was met partly from the King George Thanksgiving (Anti-Tuberculosis) Fund and partly from the Public Health Budget.

## INDIAN RED CROSS SOCIETY.

44. The full records of the progress of activities of the Red Cross Society will be found in the Honorary Secretary's Report for 1934. The number of branches was increased from 6 in 1933 to 13 in 1934. Very substantial progress was made with Red Cross activities during the year in the Province.

## KING GEORGE THANKSGIVING (ANTI-TUBERCULOSIS) FUND.

During the year six sets of Tuberculosis slides were purchased and the Assistant Surgeons of the Public Health Department commenced Tuberculosis propaganda with the aid of Magic Lantern demonstrations. Twelve picture posters on Tuberculosis (six on causes and six on prevention) published by the Central Committee were distributed during the year for propaganda and publicity purposes. Some charts and pamphlets were distributed to High English and Middle English Schools and to the general public. The Sub-Committee of the Nowgong District Branch of the Indian Red Cross Society carried on propaganda work against Tuberculosis by means of Magic Lantern demonstrations.



## CHAPTER XII.

## PUBLIC HEALTH ADMINISTRATION.

Budget grants for the Department. 45. The financial condition of the Province, during the year under review was not such as would permit of any expansion of the Department.

The budget allotments for the years 1933-34 and 1934-35 were Rs. 6,10,600 and Rs. 6,63,800 respectively while those for the heads administered by the Director of Public Health amounted to Rs. 5,16,194 and Rs. 5,67,624 respectively.

During the years 1933-34 and 1934-35 supplementary grants of Rs. 55,100 and Rs. 16,182 respectively were sanctioned by Government.

The receipts of the Department for the years 1933-34 and 1934-35 amounted to Rs. 1,01,696 and Rs. 82,209 respectively.

The strength of the Public Health Department during the year was as shown below:—

1. Director of Public Health...	...	...	...	1
2. Assistant Directors of Public Health...	...	...	...	2
3. Urban Health Officers	...	...	...	9
4. Assistant Surgeons	...	7	(1 permanent and 6 temporary.)	
5. Sub-Assistant Surgeons	...	104	(1 permanent and 103 temporary.)	
6. Vaccination Inspecting Staff...	...	39	(29 permanent and 10 temporary.)	
7. Clerks	...	26	(16 permanent and 10 temporary.)	
8. Biochemist	...	...	...	1
9. Compounders	...	5	(temporary)	
10. Literate packers...	...	...	...	2
11. Loaders	...	...	...	2
12. Disinfectant Carriers	...	...	...	30
13. Sample taker	...	...	...	1
14. Laboratory Assistant and Media Maker	...	15	(4 temporary)	
15. Vaccinators appointed by Government in Hill Districts.				37
„ by Local Boards...	...	...	...	360
„ by Municipalities ..	...	...	...	25
„ Development Board	...	...	...	1
16. Servants	...	...	...	120

The Municipal Board of Shillong appoints a fully qualified Health Officer. A part of the pay of this officer is met by a contribution from Government.

## CHAPTER XIII.

## VACCINATION.

This chapter and all statistical tables connected therewith refer to the period from April 1st, 1934 to March 31st, 1935.

Introductory.

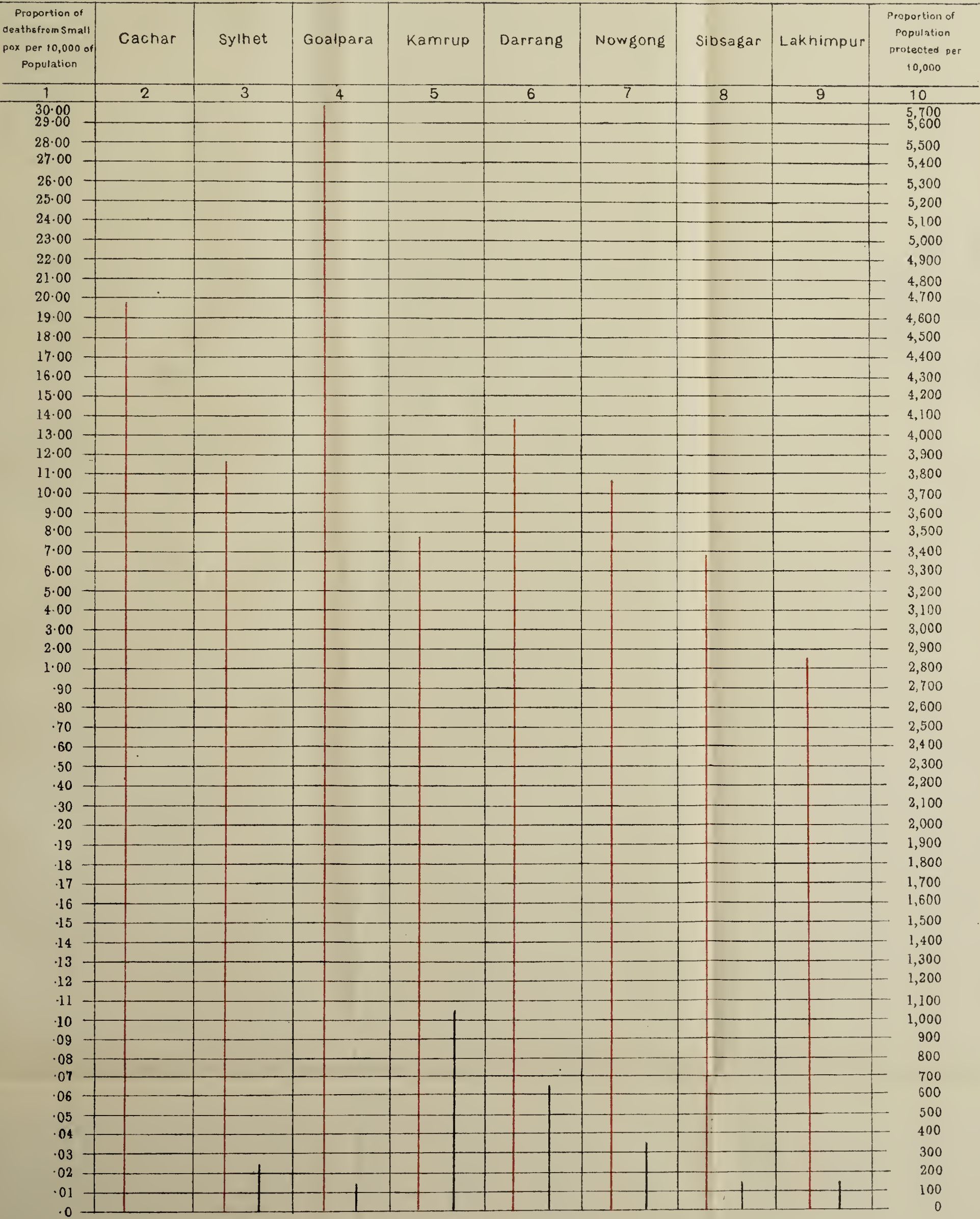
46. Vaccination was carried on as usual throughout the Province amongst a population of 9,247,857.

47. The total number of Vaccinators employed during the year was 414, as compared with 435 in the preceding year. Vaccination among the general population was performed by

Vaccination Agencies. Departmental Vaccinators and among the labour force on Tea Estates by Tea Garden Medical Officers. Railway employees were vaccinated by the Railway Medical Officers and in Jails by Sub-Assistant Surgeons in medical charge. The average number of persons vaccinated by each vaccinator was 1,588 during the year under report as compared with 1,502 in the preceding year.



The following diagram illustrates the death rates from Small-pox in each District side by side with the proportion of the Population protected against the disease by Vaccination during the seven years 1928-29 to 1934-35



NOTE Black lines indicate death rate from Small-pox  
Red lines indicate the proportion protected by Vaccination





48. The total number of operations performed during the year by all Agencies was 704,936, of which 414,785 were primary and 293,151 revaccinations, as compared with 706,460 in the preceding year of which 402,375 were primary and 304,085 revaccinations. This shows an increase of 9,410 in primary vaccinations and decrease of 10,934 in revaccinations. Variations in the district returns are criticised in paragraph 55.

The total number of operations performed by different Agencies during the year under report and in the previous year is shown below :—

	1934-35.	1933-34.
Number of operations by Departmental Vaccinators ...	656,712	653,163
Ditto by the Staff of Dispensaries	7,263	6,779
Ditto by Tea Garden Agencies	36,46	37,503
Ditto by Jail, Asylum, Police and Emigration Hospital Agencies	3,900	6,287
Ditto by Railway Agencies	635	2,728

Vaccinations by Departmental Vaccinators.

49. The number of operations performed by Departmental Vaccinators during the year was 656,712 as compared with 653,163 in the preceding year.

Deaths from Small-pox.

50. A total of 231 deaths from Small-pox occurred in the Province, including Hill Districts, during the year

1934-35 as shown below :—

Cachar	...	...	...	...	Nil.
Sylhet	...	...	...	...	47
Khasi and Jaintia Hills	...	...	...	...	2
Naga Hills	...	...	...	...	Nil.
Lushai Hills	...	...	...	...	Nil.
Goalpara	...	...	...	...	9
Kamrup	...	...	...	...	100
Darrang	...	...	...	...	37
Nowgong	...	...	...	...	15
Sibsagar	...	...	...	...	6
Lakhimpur	...	...	...	...	8
Garohills	...	...	...	...	7
Manipur	...	...	...	...	Nil.
Sadiya	...	...	...	...	Nil.
Balipara	...	...	...	...	Nil.
Total	...	...	...	...	231

The ratio of deaths from Small-pox during the year 1934-35 was .02 per mille of population as compared with .03 in the preceding year. The highest death rate reported from Small-pox was in the district of Kamrup (.10) against (.07) in the preceding year. The death rate reported from Darrang was (.06) against (.04) in the preceding year.

The attached chart illustrates the death rates from Small-pox in each district side by side with the proportion of population protected against the disease by vaccination during the seven years from 1928-29 to 1934-35.

51. Vaccination in Rural Areas in Assam is not compulsory, but every encouragement is given to the people to get themselves vaccinated. In certain localities amongst certain castes there is marked opposition to the acceptance of free vaccination. To overcome this hostility, resort is had to regulations framed under the Epidemic Diseases Act, 1897 (Act III of 1897), for the purpose of declaring a locality as a Small-pox infected area. During the year under report, the Samabari, Sialmari and Dalgaon Mauzas in the Mangaldai subdivision, Barbhogia, Chilabanda and Balipara Mauzas in the Tezpur subdivision of the Darrang district, Nomati, Khata, Hajo Betna in the Gauhati subdivision and Sarukhetri, Sariha, Uttarbojali, Bogoribari Chenga in the Barpeta subdivision of the Kamrup district and the entire Goalpara district were declared as Small-pox infected areas.

52. A total of 7,263 vaccinations were performed by Dispensary staff of which 2,285 were primary and 114,978 were revaccinations, as compared with 6,779 in 1933-34 with 2,161 primary and 4,618 revaccinations.

Dispensary Vaccination.



53. The percentage of successful operations performed by all combined establishments was 91·07 for primary vaccination and 64·39 for revaccination as compared with 91·80 and 61·26 respectively in 1933-34. The successful percentage in primary vaccinations and revaccinations in the case of dispensary staff was 93·90 and 55·96 as against 90·95 and 68·56 respectively in 1933-34. No complaints in regard to the potency of lymph supplied were received during the year.

54. All vaccinations were performed, as in previous years, with glycerinated calf lymph manufactured in the Provincial Vaccine Depôt at Shillong.

55. The following table shows the increase and decrease in vaccination operations performed in individual districts, as compared with the preceding year :—

	1934-35.	1933-34.	Increase.	Decrease.
	Total.	Total.		
Cachar ...	49,167	46,544	2,623	...
Sylhet ...	161,406	158,631	2,775	...
Khasi and Jaintia Hills ...	26,582	17,793	8,789	...
Naga Hills ...	10,279	9,039	1,240	...
Lushai Hills...	12,956	12,307	649	...
Goalpara ...	119,790	157,992	...	38,202
Kamrup ...	58,892	63,989	...	5,097
Darrang ...	65,199	46,954	18,245	...
Nowgong ...	42,089	35,816	6,273	...
Sibsagar ...	59,620	57,647	1,973	...
Lakhimpur ...	42,093	39,999	2,094	...
Garohills ...	25,163	30,370	...	5,207
Manipur State ...	24,573	24,598	...	25
Sadiya Frontier Tract ...	6,679	4,197	2,482	...
Balipara Frontier Tract ...	448	584	...	136
Total ...	704,936	706,460	...	1,524

The noticeable fall of 38,202 in the Goalpara district is attributed to the fact that the areas under South Salmara and Mankachar Police stations escaped vaccination during 1932-33 and consequently during the year under report the majority of the vaccinators were engaged and worked in these areas. The increase in the Darrang district is the highest (18,245). Normally, a vaccinator is expected to perform a minimum of 250 vaccinations in a month during the vaccination season. The mortality from Small-pox in the Kamrup district is the highest in the Province. No vaccinations were performed by the dispensary staff in the Cachar district.

56. The subordinate Inspecting staff was the same as in previous years and consisted of 9 Inspectors, 20 permanent and 10 temporary Sub-Inspectors of Vaccination, and 2 Sub-Inspectors of Vaccination were entertained by the Manipur State.

57. In towns, where vaccination is compulsory, 6,796 infants were born and of these 764 died. A total of 6,032 infants were therefore available for vaccination. A total of 3,010 or 49·90 per cent. were successfully vaccinated as compared with 53·69 per cent. during the previous year. In Gauhati town 74·70 per cent. of the available infants were vaccinated. In other towns the percentage of vaccinated children was :—Maulvi Bazar (72·73 per cent.), Nowgong (71·30 per cent.) Barpeta (70·92 per cent.) Shillong (65·97 per cent.), Goalpara (58·01 per cent.) Dibrugarh (53·96 per cent.), Sylhet (51·91 per cent.), Jorhat (44·40 per cent.), Doom Dooma (43·75 per cent.), Mangaldai (41·30 per cent.), Tinsukia (41·05 per cent.), Silchar (41·03 per cent.), Gauripur (40·00 per cent.) Karimganj (32·32 per cent.) Habiganj (26·48 per cent.) Dhubri (24·17 per cent.), Tezpur (24·15 per cent.), Sibsaagar (12·61 per cent.), Hailakandi (10·15 per cent.). Absurdly low rates were returned from Golaghat (3·24 per cent.), Sunamganj (5·41 per cent.) and in Nazira town (3·90 per cent.). The vaccination inspecting staff in charge of these areas will be made to take more interest in this most important branch of their duties.



In Rural Compulsory Areas under Village Authorities in the Sylhet district, 2,093 operations were performed as compared with 2,071 in the previous year.

58. The total number of capillary tubes loaded during the year was 8,63,842 as compared with 9,16,744 in the previous year. The number of calves purchased and inoculated during the year under report was 602, excluding 6 brought forward from the previous year. There were no deaths amongst the inoculated calves during the year under report. Out of 608 calves, (including 6 of the previous year), lymph was taken from 523 calves. A total of 85 calves were rejected, 56 on account of illness 25 on account of failure of operations and 4 on account of unsatisfactory vesicles, as compared with 37,247 and 1 death respectively in the preceding year. The average number of tubes prepared per calf was 1,633 as compared with 1,890 in 1933-34. The total cost of working the Vaccine Depot was Rs. 18,678 of which Rs. 6,152 was on establishment, Rs. 4,149 on purchase of calves, Rs. 64 on feed of calves, Rs. 4,758 on purchase of capillary tubes and instruments and Rs. 3,555 on miscellaneous expenditure, as compared with Rs. 18,663-10-6 in the preceding year. Lymph as usual was supplied free throughout the year to Civil Surgeons, Inspectors and Sub-Inspectors of Vaccination, and Local and Municipal Boards. Tea gardens, Railways, Welsh Mission Hospital, Manipur State, Sadiva and Balipara Frontier Tracts and Medical Officers of Military Units were supplied with the lymph on payment at the rate of one anna per tube.

The subordinate charge of the Vaccine Depot was held by Rai Sahib Dr. Aswini Kumar Parkayastha throughout the year with considerable credit.

59. The total expenditure including the charges of the Vaccine Depot, on vaccination in Assam during the year under report was Rs. 1,15,759-0-6 as compared with Rs. 1,09,548-1-6 in the preceding year. The average cost of each successful vaccination during the year was annas three and pies nine only as in the previous year.

60. Primary vaccinations and revaccinations by the dispensary staff numbered 2,285 and 4,978 respectively and by the Railway Medical Officers 112 and 523 respectively. Their successful percentages were 93.90, 55.96 and 81.25 and 32.46 respectively. The following Inspectors and Sub-Inspectors of Vaccination did good work during the year:—

#### INSPECTORS OF VACCINATION.

61. Maulavi Wazuddin Ahmed (Nowgong), Maulavi Anjumal Hussain Ahmed (Darrang), Babu Srish Chandra Roy Chaudhury (Cachar).

#### SUB-INSPECTORS OF VACCINATION.

Babu Mahendra Nath Das (Sadiya Frontier Tract), Srijut Someswar Saikia (Nowgong), Srijut Padmaram Gogoi (Sibsagar), Babu Chandramoni Barman (Cachar), Srijut Surbeswar Neog (Darrang), Maulavi Muhammad Furkan Ali (Cachar).

### CHAPTER XIV.

#### OTHER PUBLIC HEALTH SERVICES.

62. The principal industry in the province is the cultivation and manufacture of Tea. The sanitary conditions on tea gardens are generally satisfactory. Special regulations exist under the Emigration Act for the supervision of sanitary conditions on tea estates.

The Indian Factories Act controls sanitation in Factories and also in regard to Offensive Trades. Towns would be rendered healthier if the various industries were allowed to grow and function outside.

63. The Civil Surgeon, Lakhimpur, inspected the sanitary conditions of Ledo Valley Colliery and the Mine at Digboi and the Civil Surgeon, Naga Hills inspected the sanitary condition of Borjan Colliery during the year under review. Assistant Directors of Public Health, who are also *ex-officio* Inspectors of Mines, undertook no inspection of Mines. The Civil Surgeon, Lakhimpur, was satisfied with the sanitary and medical arrangements existing in the Mine at Digboi. The arrangements in the collieries were not very satisfactory and the Civil Surgeon has suggested improvements.



Public Analyst (Food Adulteration).

64. The appended table shows the work done in the Public Health Laboratory in 1934 as compared with that of the previous year.

	1934.		1933.	
	Number examined.	Number found adulterated.	Number examined.	Number found adulterated.
1	2	3	4	5
Chemical analysis of water ...	93	...	108	...
Ditto Milk ...	369	175	274	98
Ditto Ghee ...	92	55	78	43
Ditto Mustard oil ...	99	38	81	41
Ditto Butter ...	1	1	1	...
Ditto Atta ...	4	2	...	...
Ditto Flour (Maida) ...	5	3	...	...
Ditto Cocoanut oil ...	5	4	...	...
Ditto Tea ...	10	3	...	...
Ditto Sago ...	1	...	...	...
Ditto Turmeric powder ...	2	2	...	...
Ditto Rice ...	4	...	14	...
Ditto Sugar ...	1	1	...	...
Ditto Other foodstuffs ...	...	...	14	...
<b>MISCELLANEOUS CHEMICAL ANALYSIS.</b>				
Bacteriological analysis of water	596	...	554	...
Ditto Vaccine lymph ...	430	...	400	...
Miscellaneous Microscopical examination of blood films, etc. ...	...	...	1	...
Antiseptic larvicides ...	...	...	...	...
Other chemical analysis (Miscellaneous)	2	...	...	...
Total	1,714	284	1,525	82

The number of samples analysed during the year under report was 1,714 against 1,525 in the preceding year. A larger number of samples of food-stuffs were analysed during the year under review as compared with that of 1933. As usual, bacteriological and chemical examinations of filtered waters of all water works and Jails in the Province were satisfactorily carried out throughout the year. The Laboratory worked as the Provincial Depot for the supply and despatch of urea-stibamine and spare parts of syringes to *Kala azar* dispensaries.

Dr. Surendra Chandra Datta held charge of the Laboratory with credit throughout the year.



The statement below shows the number of cases instituted and the amount of fines inflicted for the sale of adulterated food during 1934—

*Statement of the working of the Assam Pure Food Act in the districts and Municipalities during the year 1934.*

[illegible]



*Statement of the working of the Assam Pure Food Act in the districts and municipalities during the year 1934—concl'd.*

Name of Local authorities.	Number of sample purchased.	Number of sample sent for analysis.	Number of samples found adulterated.	Number of prosecution instituted.	Number of conviction secured for first offences.	Number of conviction secured for subsequent offences.	Amount of fine or imprisonment for each first offences (average).	Amount of fine or imprisonment for each subsequent offences (average).	Nature of offences.	Total amount of fine realised during 1934.	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12
							Rs. a. p.			Rs. a. p.	
19. Shillong Municipal Board.	323	323	153	152	97	...	5 14 9	...	Watered and skimmed milk. Adulterated mustard oil.	574 0 0	Nine cases are pending in court, 39 accused were not found and 6 cases were acquitted. The Assam Pure Food Act has not been extended to the non-British portion of the Shillong Municipality and steps have been taken for the extension of the Act.
20. Sylhet Municipal Board.	15	15	15	15	7	...	19 0 0	...	Stocked adulterated articles of food, drinks exposed for sale to public.	137 0 0	
21. Habiganj Municipal Board.	16	14	6	6	...	...	.....	...	Adulterated mustard oil and ghee.	...	All the prosecutions were withdrawn as the accused furnished written understanding that they will not deal with adulterated oil.
22. Sunamganj Municipal Board.	...	...	...	...	...	...	...	...	.....	...	
23. Karimganj Municipal Board.	7	7	5	3	5*	...	52 0 0 (Rs. 10 as fine, Rs. 42 as donation).	...	Adulteration of ghee and mustard oil,	52 0 0	* The measure taken hitherto to check adulterated food, oil and ghee had its deterrent effect upon the supply of impure food. Two were disposed of otherwise on payment of donation to the Hospital Charity Fund and on guarantee of future conduct. Out of three one was convicted and fined Rs. 10 and other two could not be traced out.
24. Maulvibazar Municipal Board.	...	...	...	...	...	...	...	...	...	...	
25. Gauipur Town Committee.	...	...	...	...	...	...	...	...	...	...	

Port Health Administration.

65. Nil.

Sanitary Works.

66. (Civi.) This is dealt with in Chapter VI under heading "Urban Sanitation".

67. There was no meeting of the Public Health Board during the year. The Health Board (Epidemics) functioned as in the previous year.

Public Health Board.

## CHAPTER XV.

### GENERAL REMARKS.

68. Research work in the Province is entrusted to the Assam Medical Research Society. The Society is in receipt of an annual contribution of Rs. 25,000 from the Government, and the

Research Work.

Director of Public Health, Assam, is an *ex-officio* Member of the Governing Body. The activities of the Society have been confined to Malaria, Cholera, and Dysentery. The survey of certain malarious areas continues. Experiments with Cholera and Dysentery Bacteriophage were continued in the Nowgong district and Habiganj subdivision during the year.



## Leper Asylums and Colonies.

69. The appended statement shows the details of patients treated in the existing leper institutions in the Province :—

—	Remaining from previous year.	Admissions during the year.	Total.	Discharged cured or relieved.	Discharged other-wise.	Died	Remaining at the end of the year.
1	2	3	4	5	6	7	8
Sylhet Leper Asylum.	70	30	100	13	10	5	72
Kohima Leper Hospital.	21	10	31	5	1	4	21
Leper Ward, Dhubri.	9	15	24	1	11	...	12
Leper Colony, Tura.	84	90	174	...	92	6	76

The Leper Asylum at Gauhati, opened by the Gauhati Municipal Board, and the Leper Colony at Jorhat started by the American Baptist Missionary Society, treated 87 and 53 lepers respectively during the year under review. Treatment of leprosy is available in out-patient clinics at all Sadr and Subdivisional headquarters hospitals and at many of the more important outlying dispensaries. Fifty-two Public Health Department dispensaries have so far been equipped for the treatment of leprosy.

Famine.

70. No remarks.

Public Health Acts.

71. No Public Health Act was passed during the year.

Public Health Essays.

72. Nil.

**Bacteriophage.**—The Pasteur and Medical Research Institute, Shillong issued 8,71,316 doses of Bacteriophage during the year under report. The demand for Bacteriophage in Tea Gardens in the treatment of bacillary dysentery is steadily increasing. The work of distribution of Bacteriophage in the prevention of Cholera in the Nowgong district and in the Habiganj subdivision of the Sylhet district was transferred to the Public Health Department during the year under review. The statistics of mortality in these two areas during the past 5 years are given below :—

—	1930.		1931.		1932.		1933.		1934.	
	Cholera.	Dysentery and diarrhoea.	Cholera.	Dysentery and diarrhoea.	Cholera.	Dysentery and diarrhoea.	Cholera.	Dysentery and diarrhoea.	Cholera.	Dysentery and diarrhoea.
1	2	3	4	5	6	7	8	9	10	11
Nowgang	53	277	44	316	27	250	22	322	22	310
Habiganj	1307	665	694	564	493	511	211	625	176	645

**Neo-Stibosan.**—The administration of this preparation is restricted to Urban Areas only where hospital conditions exist.

**Plasmoquine and Atebrin.**—These drugs were tried experimentally in the treatment of malaria and also for prophylactic purposes.

73. I held charge of the Department throughout the year. During the months of January and February, I inspected *Kala azar* Leprosy and Yaws operations and also Vaccination work in the districts of Kamrup, Nowgong, Sibsagar and Lakhimpur. In May, I visited Dibrugarh and conducted the examination in Hygiene and Vaccination at the Berry-White Medical School and also attended the Selection Board at Gauhati for the recruitment of candidates for the Assam Medical Service (Senior). June and July were spent at headquarters in the preparation of administrative reports and in administrative work. In August, I carried out the routine inspection of Municipalities of Tezpur and Jorhat. In September, I inspected the Government Offices in Shillong with special reference to overcrowding, ventilation, air space and general sanitary.

Personal Proceedings.



conditions prevailing in the buildings. In October, I conducted the examinations in the Berry-White Medical School and also carried out inspection of the Dibrugarh Municipality. In November, I carried out routine inspections of the Municipalities of Silchar and Karimganj and also attended a meeting of the Indian Research Fund Association in Calcutta. In December, I supervised the Cholera epidemic in Goalpara district and in addition inspected *Kala azar*, Leprosy and Yaws operations and vaccination work in Goalpara, Kamrup and Nowgong districts.

Dr. P. Gupta, M.B., D.T.M. and H., F.R.F.P.S., D.P.H., held the post of Assistant Director of Public Health, Assam Valley Division, up to the 11th January when he proceeded on 4 months' leave. On his return in the later part of May he was transferred to the Surma Valley and Hill Districts Division. In June, he was engaged in Bacteriophage distribution work in Habiganj and in addition inspected the anti-malaria operation in Haflong and sanitation of the Haflong town. In July and August he visited the flood-affected areas of Sylhet district and also inspected *Kala azar* work of the Sylhet district and anti-malaria operations in Jaintiapur. In September, he was engaged in a Malaria survey of Haripur and also took the spleen rate of some areas in the Habiganj subdivision. In October he was engaged in Laboratory work. During the months of November and December, he was employed in the Cholera epidemic in Goalpara district and in addition, inspected *Kala azar*, Leprosy and Vaccination operations in the Sylhet district.

Dr. S. H. Paul, L.R.C.P., M.R.C.S., D.P.H., D.T.M., held the post of the Assistant Director of Public Health, Surma Valley and Hill Division, up to the middle of May 1935, when he was transferred to the Assam Valley Division. During the months of January to April, he inspected *Kala azar* and Vaccination operations, and also carried out inspection of schools in the Sylhet district and in addition organised and supervised Childwelfare and Maternity sections of the exhibitions held at Sunamganj and Sylhet and also trained Sub-Assistant Surgeons in malariology. In May, he supervised the work of the malaria laboratories in Sylhet and Gauhati. In June, he inspected anti-malaria operations in Kachugaon and Haltugaon and the Malaria survey work at Abhoyapuri. In July and August, he was engaged in flood relief work in Nowgong district and in addition visited cholera affected villages in the Kamrup district. In September, he inspected anti-malaria operations in the Goalpara district and also inspected *Kala azar* and supervised cholera work in the Kamrup district. In October, he inspected the Barpeta Municipality and supervised cholera work in the Kamrup district. In November and December, he was employed on cholera epidemic duties in Goalpara and Kamrup districts.

74. In conclusion I have to thank my entire Office staff for the able manner in which they have carried out their duties during the year. In particular, I have to thank my Personal Assistant, Babu Iswar Chandra Das, for his very loyal and able services.

T. D. MURISON,  
Lieut.-Colonel, I. M. S.,  
Director of Public Health, Assam.



# STATEMENTS

## VITAL STATISTICS



IMPERIAL STATEMENT No. I.—*Statement showing the births*

No.	Districts.				Population according to the Census of 1931.			Number of births registered.		
					Male.	Female.	Total.	Male.	Female.	Total.
1	2				3	4	5	6	7	8
	SURMA VALLEY.									
1	Cachar	...	...	...	284,738	254,073	538,811	9,561	8,981	18,542
2	Sylhet	...	...	...	1,407,645	1,316,697	2,724,342	49,290	45,497	94,787
	Total	...	...	...	1,692,383	1,570,770	3,263,153	58,851	54,478	1,13,329
	ASSAM VALLEY.									
3	Goalpara	...	...	...	470,273	412,475	882,748	15,784	14,628	30,412
4	Kamrup	...	...	...	513,345	463,401	976,746	10,710	10,254	20,964
5	Darrang	...	...	...	317,103	267,714	584,817	10,062	9,390	19,452
6	Nowgong	...	...	...	298,585	263,996	562,581	5,470	4,938	10,408
7	Sibsagar	...	...	...	496,288	437,038	933,326	13,932	12,809	26,741
8	Lakhimpur	...	...	...	399,108	325,474	724,582	10,931	10,519	21,450
	Total	...	...	...	2,494,702	2,170,098	4,664,800	66,889	62,538	1,29,427
	Total for the province	...	...	...	4,187,085	3,740,868	7,927,953	1,25,740	1,17,016	2,42,756

IMPERIAL STATEMENT No. II.—*Statement showing the births and deaths*

No.	Districts.	Area, in square miles.	Average population per square mile.	Population (Census of 1931).			Births.		Number of deaths registered		
				Male.	Female.	Total.	Total number.	Births per 1,000 of population.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
	SURMA VALLEY.										
1	Cachar ...	1,972	273	284,738	254,073	538,811	18,542	34.41	5,147	4,974	10,121
2	Sylhet ...	5,478	497	1,407,645	1,316,697	2,724,342	94,787	34.79	31,994	28,177	60,171
	Total ...	7,450	438	1,692,383	1,570,770	3,263,153	1,13,329	34.73	37,141	33,151	70,292
	ASSAM VALLEY.										
3	Goalpara ...	3,985	222	470,273	412,475	882,748	30,412	34.45	11,433	9,271	20,704
4	Kamrup ...	3,844	254	513,345	463,401	976,746	20,964	21.46	7,121	6,422	13,543
5	Darrang ...	2,842	206	317,103	267,714	584,817	19,452	33.26	6,285	6,240	12,525
6	Nowgong ...	3,896	144	298,585	263,996	562,581	10,408	18.50	3,314	3,058	6,372
7	Sibsagar ...	5,131	182	496,288	437,038	933,326	26,741	23.65	9,067	8,633	17,700
8	Lakhimpur ...	4,234	171	399,108	325,474	724,582	21,450	29.60	7,586	6,979	14,565
	Total ...	23,932	195	2,494,702	2,170,098	4,664,800	129,427	27.75	44,806	40,603	85,409
	Total for the province	31,382	253	4,187,085	3,740,868	7,927,953	242,756	30.62	81,947	73,754	1,55,701



registered in the districts of Assam during the year 1934.

Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during the previous five years.		
Male.	Female.	Total.				Male.	Female.	Total.
9	10	11	12	13	14	15	16	17
17.74	16.67	34.41	106	15.63	...	16.42	15.57	31.99
18.09	16.70	34.79	108	12.71	...	17.56	16.37	33.93
18.04	16.69	34.73	108	13.19	...	17.37	16.24	33.61
17.88	16.57	34.45	108	11.00	...	15.93	14.98	30.91
10.96	10.49	21.46	104	7.60	...	11.39	10.65	22.04
17.20	16.06	33.26	107	11.84	...	13.57	12.92	26.49
9.72	8.78	18.50	111	7.17	...	11.19	10.46	21.65
14.93	13.72	28.65	109	9.69	...	13.66	12.79	26.45
15.08	14.52	29.60	104	9.50	...	13.03	12.52	25.55
14.34	13.41	27.75	107	9.44	...	13.21	12.45	25.66
15.86	14.76	30.62	107	10.98	...	14.92	14.01	28.93

registered in the districts of Assam during the year 1934.

Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from—											Mean ratio of deaths per 1,000 during the previous five years.		
	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
									Male.	Female.	Total.			
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
103	.03	...	...	9.74	1.09	1.64	.29	5.98	18.08	19.58	18.78	20.14	21.94	20.99
114	.44	.02	...	12.93	.93	.52	.40	6.86	22.73	21.40	22.09	21.98	21.08	21.51
112	.37	.02	...	12.40	.96	.70	.38	6.71	21.95	21.10	21.54	21.61	21.22	21.42
123	.48	.01	...	21.95	.17	.15	.19	.51	24.31	22.48	23.45	22.90	21.61	22.39
111	.09	.68	...	11.33	.39	.28	.24	1.45	13.87	13.86	13.86	13.77	13.84	13.75
101	.05	.07	...	13.87	1.31	1.26	.27	4.58	19.82	23.31	21.42	19.85	21.99	20.83
108	.04	.01	...	9.01	.55	.38	.13	1.21	11.10	11.58	11.33	13.13	13.66	13.41
105	.09	.01	...	11.07	2.15	1.35	.23	4.06	18.27	19.75	18.96	16.29	17.23	16.74
109	.05	.01	...	10.16	2.01	2.10	.31	5.45	19.01	21.44	20.10	16.74	19.06	17.78
110	.15	.03	...	13.15	1.09	.89	.23	2.78	17.96	18.71	18.31	16.85	17.48	17.14
111	.24	.03	...	12.84	1.03	.81	.29	4.40	19.57	19.72	19.64	18.77	19.05	18.90



## IMPERIAL STATEMENT No. III.—Deaths registered in the

No.	A.—Rural circles.				January.	February.	March.	April.	May.
1	2				3	4	5	6	7
1	Cachar	...	...	...	1,143	739	692	727	854
2	Sylhet	...	...	...	6,915	5,666	4,302	4,338	4,115
3	Goalpara	...	...	...	1,783	1,478	1,413	1,893	1,738
4	Kamrup	...	...	...	928	736	947	1,075	1,707
5	Darrang	...	...	...	890	641	858	964	1,150
6	Nowgong	...	...	...	481	379	554	619	631
7	Sibsagar	...	...	...	1,156	1,248	1,186	1,253	1,676
8	Lakhimpur	...	...	...	880	805	978	932	1,354
Total for rural circles					14,176	11,692	10,930	11,801	13,225
Ratio per mille of population					1·80	1·64	1·39	1·55	1·64

No.	B.—Towns.				January.	February.	March.	April.	May.
1	2				3	4	5	6	7
SURMA VALLEY.									
1	Silchar ...	...	...	...	13	6	9	11	16
2	Hailakandi ...	...	...	...	2	2	2	3	2
3	Haflong ...	...	...	...	2	2	...	...	1
4	Sylhet ...	..	...	...	36	20	20	24	18
5	Karimganj ...	...	...	...	9	4	7	4	7
6	Maulvibazar ...	...	...	...	15	5	...	1	5
7	Habiganj ...	...	...	...	23	9	10	16	9
8	Sunamganj ...	...	...	...	18	13	2	7	3
Total ...					118	61	50	66	61
ASSAM VALLEY.									
9	Dhubri ...	...	...	...	22	9	5	12	17
10	Goalpara ...	...	...	...	6	6	6	13	4
11	Gauripur ...	...	...	...	13	6	3	...	8
12	Gauhati ...	...	...	...	48	32	28	21	44
13	Barpeta ...	...	...	...	33	19	30	22	42
14	Palasbari ...	...	...	...	8	4	3	8	7
15	Tezpur ...	...	...	...	12	12	18	18	12
16	Mangaldai ...	...	...	...	2	2	3	3	5
17	Nowgong ...	...	...	...	14	16	8	15	21
18	Jorhat ...	...	...	...	8	7	10	8	10
19	Sibsagar ...	...	...	...	4	3	13	5	7
20	Golaghat ...	...	...	...	10	3	7	4	10
21	Nazira ...	...	...	...	6	3	5	1	...
22	Dibrugarh ...	...	...	...	35	23	22	22	33
23	North Lakhimpur .	...	...	...	...	4	4	2	3
24	Doom Dooma ...	...	...	...	5	...	...	2	5
25	Tinsukia ...	...	...	...	5	...	3	3	7
Total ...					231	149	168	159	235
Total for the towns ...					349	210	218	225	296
Ratio per mille for towns ...					1·76	1·17	1·10	1·17	1·49
Total for the province ...					14,525	11,902	11,148	12,026	13,521
Ratio per mille for the province ...					1·79	1·63	1·38	1·54	1·67

Ratios have been calculated

This table includes municipalities and small towns, in which



*districts (rural circles) and towns of Assam during each month of the year 1934.*

June.	July.	August.	September.	October.	November.	December.	Total deaths during the year.
8	9	10	11	12	13	14	15
767	761	688	681	837	990	1,031	9,910
4,185	4,798	4,017	4,886	4,588	5,497	6,118	59,425
1,653	1,770	1,658	1,512	1,612	1,576	2,287	20,373
1,396	1,445	945	909	803	878	922	12,691
2,012	1,080	883	781	919	1,019	1,077	12,274
712	522	526	443	523	415	377	6,182
1,600	1,908	1,660	1,534	1,594	1,167	1,326	17,308
1,403	1,322	1,247	1,339	1,402	1,309	1,112	14,083
13,728	13,606	11,624	12,085	12,278	12,851	14,250	152,246
1.79	1.73	1.47	1.58	1.56	1.69	1.81	19.69

June.	July.	August.	September.	October.	November.	December.	Total deaths during the year.
8	9	10	11	12	13	14	15
9	14	16	8	20	12	18	152
2	2	1	6	3	2	4	31
7	4	2	2	...	2	6	28
25	19	30	25	35	39	27	318
13	12	10	14	16	8	6	110
5	6	2	6	5	10	6	66
7	11	19	11	13	12	11	151
4	9	5	12	12	10	6	101
72	77	85	84	101	95	84	957
12	17	15	17	8	23	7	164
8	4	13	3	10	10	...	83
11	9	11	7	1	2	13	84
25	25	30	56	40	44	28	421
51	32	33	31	19	24	23	359
8	5	7	4	7	6	5	72
19	21	27	19	24	22	15	219
1	...	3	6	2	2	3	32
12	15	24	16	15	16	18	190
10	14	15	18	11	13	10	134
8	13	9	13	4	5	1	85
5	16	17	13	14	12	9	120
...	5	9	2	5	9	8	53
33	37	43	25	31	43	23	370
6	5	6	...	6	5	7	48
...	...	...	...	1	...	2	15
4	3	4	8	4	3	5	49
213	221	266	238	202	239	177	2,498
285	298	351	322	306	334	261	3,455
1.49	1.51	1.77	1.68	1.54	1.74	1.32	17.77
14,013	13,904	11,975	12,407	12,584	13,185	14,511	155,701
1.79	1.72	1.48	1.59	1.57	1.68	1.80	19.64

with reference to number of days in each month.

registration of vital statistics is compulsory.



## IMPERIAL STATEMENT No. IV.—Deaths registered according to

No.	A.—Rural cir- cles.	Under 1 year.															Total.			1 and under 5 years.	
		Not exceeding 1 month.						Total.	Over 1 month and not exceeding 6 months.			Over 6 months and not exceeding 12 months.									
		Male.			Female.				Male.	Female.	Total.	Male.	Female.	Total.							
		Under one week.	Over one week	Total.	Under one week.	Over one week.	Total.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
1	Cachar ...	347	413	760	282	315	597	1,357	359	296	655	255	269	524	1,374	1,162	2,536	595	598		
2	Sylhet ...	2,469	3,101	5,570	1,885	2,501	4,386	9,956	2,639	2,172	4,811	1,007	872	1,879	9,216	7,430	16,646	3,938	3,500		
3	Goalpara ...	999	561	1,560	590	545	1,135	2,695	1,034	909	1,993	372	320	692	3,016	2,364	5,380	1,483	1,420		
4	Kamrup ...	222	605	827	209	568	777	1,604	622	592	1,214	316	330	646	1,765	1,699	3,464	1,275	1,406		
5	Darrang ...	178	388	566	143	420	563	1,129	657	583	1,240	342	314	656	1,565	1,460	3,025	838	861		
6	Nowgong ...	139	232	371	82	213	295	666	345	350	735	191	200	391	947	845	1,792	506	444		
7	Sibsagar ...	386	474	860	277	411	688	1,548	718	584	1,302	403	338	747	1,987	1,610	3,597	1,697	1,688		
8	Lakhimpur ...	290	430	720	222	314	536	1,256	513	439	952	372	342	714	1,605	1,317	2,922	1,372	1,221		
	Total for rural circles.	5,030	6,204	11,234	3,690	5,287	8,977	20,211	6,977	5,925	12,902	3,264	2,985	6,249	21,475	17,837	39,312	11,704	11,138		
	Ratio per mille	...	...	...	...	...	...	...	...	...	...	...	...	...	175.33	156.88	166.41	...	...		
	B.—TOWNS.																				
	Surma Valley.																				
1	Silchar ...	8	1	9	4	1	5	14	4	2	6	2	4	6	15	11	26	7	4		
2	Hailakandi ...	...	...	...	2	2	4	4	2	2	4	...	...	...	2	6	8	1	...		
3	Hailong ...	...	...	...	3	1	4	4	1	...	1	...	1	1	1	5	6	...	1		
4	Sylhet ...	23	8	31	9	9	18	49	16	14	30	11	8	19	58	40	98	21	12		
5	Karimganj ...	2	6	8	2	3	5	13	4	6	10	4	4	8	16	15	31	7	4		
6	Maulvibazar...	2	3	5	3	9	12	17	...	...	...	1	1	2	6	13	19	2	6		
7	Habiganj ...	7	4	11	1	3	4	15	12	7	19	2	1	3	25	12	37	6	15		
8	Sunamganj ...	3	3	6	2	3	5	11	3	3	6	1	3	4	10	11	21	14	9		
	Assam Valley.																				
1	Dhubri ...	22	3	25	9	2	11	36	3	4	7	3	4	7	31	19	50	10	7		
2	Goalpara ...	4	3	7	...	2	2	9	4	2	6	2	1	3	13	5	18	7	8		
3	Gauripur ...	6	2	8	3	2	5	13	2	7	9	3	1	4	13	13	26	7	6		
4	Gauhati ...	...	15	35	...	17	17	52	8	19	27	10	7	17	53	43	96	20	20		
5	Barpeta ...	1	19	20	...	17	17	37	10	12	22	4	14	18	34	43	77	32	33		
6	Palasbari ...	...	3	3	...	6	6	9	1	4	5	...	2	2	4	12	16	10	10		
7	Tezpur ...	10	1	11	10	5	15	2	12	3	15	3	2	5	26	20	46	5	6		
8	Mangaldai ...	...	1	1	...	1	1	2	1	1	2	...	...	...	2	2	4	4	3		
9	Nowgong ...	10	3	13	5	5	10	23	6	13	19	5	4	9	24	27	51	8	12		
10	Jorhat ...	7	5	12	4	1	5	17	5	2	7	1	2	3	18	9	27	8	6		
11	Sibsagar ...	3	6	9	6	2	8	17	4	2	6	...	3	3	13	13	26	5	6		
12	Golaghat ...	...	4	4	...	6	6	10	3	1	4	...	1	1	7	8	15	5	7		
13	Nazira ...	3	1	4	2	...	2	6	4	3	7	2	1	3	10	6	16	5	3		
14	Dibrugarh ...	8	6	14	2	8	10	24	4	9	13	5	2	7	23	21	44	13	15		
15	North Lakhim- pur.	...	2	2	...	2	2	4	1	1	2	2	2	4	5	5	10	5	6		
16	Doom Dooma	1	...	1	1	...	1	2	...	...	...	1	...	1	2	1	3	...	...		
17	Tinsukia ...	2	4	6	1	...	1	7	1	1	2	...	1	1	7	3	10	3	5		
	Total for towns	122	123	245	69	107	176	421	111	118	229	62	69	131	418	363	781	205	204		
	Ratio per mille	...	...	...	...	...	...	...	...	...	...	...	...	...	128.22	121.04	124.78	...	...		
	Total for the province.	5,152	6,327	11,479	3,759	5,394	9,153	20,632	7,088	6,043	13,131	3,326	3,054	6,380	21,893	18,250	40,143	11,909	11,342		
	Ratio per mille of population.	...	...	...	...	...	...	...	...	...	...	...	...	...	174.11	155.96	165.36	55.13	71.92		

\* To be calculated on births.

This table includes municipalities and small towns



age in the districts (rural circles) and towns of Assam during the year 1934.

5 and under 10 years.		10 and under 15 years.		15 and under 20 years.		20 and under 30 years.		30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 and up- wards.		Total (all ages).	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
286	283	167	146	154	300	350	737	433	453	424	296	437	297	799	614	5,024	4,886
1,731	1,500	948	733	1,020	1,569	2,301	3,787	2,930	2,194	2,649	1,745	2,588	1,793	4,260	3,593	31,581	27,844
947	725	489	369	425	564	996	1,253	1,058	796	966	532	749	465	1,109	647	11,238	9,135
665	575	276	231	197	379	442	689	505	423	481	282	464	340	575	22	6,645	6,046
413	374	234	223	256	447	463	795	607	661	502	449	557	367	629	523	6,114	6,160
252	229	119	137	117	167	193	333	219	273	270	211	243	170	343	164	3,209	2,973
662	678	342	307	334	446	567	1,064	759	823	780	590	755	560	972	687	8,855	8,453
528	455	211	246	215	390	488	834	784	791	743	509	727	488	627	482	7,300	6,783
5,454	4,819	2,836	2,392	2,718	4,262	5,800	9,542	7,300	6,414	6,815	4,614	6,520	4,480	9,314	6,732	79,966	72,280
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	1	5	1	3	8	15	8	8	8	6	9	11	3	19	6	93	59
1	2	...	...	1	2	2	1	...	2	...	2	3	1	3	2	13	18
2	...	...	1	...	2	2	...	3	...	2	2	3	...	4	...	17	11
4	2	3	3	6	16	6	22	12	16	16	8	9	7	31	24	166	152
1	3	2	1	1	3	9	8	10	4	3	2	5	2	7	7	61	49
...	1	2	1	1	2	3	5	11	8	2	2	4	...	1	1	32	34
5	...	5	2	2	5	11	9	11	6	4	5	12	7	8	1	89	62
2	...	4	...	...	2	7	4	11	2	5	1	9	3	3	4	65	36
2	3	1	3	5	5	15	3	20	4	14	3	1	2	9	7	108	56
1	4	...	2	2	5	5	5	3	1	7	2	5	2	3	3	46	37
...	1	1	2	1	2	1	3	3	2	2	2	1	3	12	9	41	43
9	6	7	8	6	12	29	22	47	19	27	10	21	8	35	19	254	167
21	21	7	5	6	10	11	9	13	8	17	6	21	9	25	28	187	172
...	...	5	2	1	...	2	4	2	1	6	2	3	2	2	4	35	37
5	2	3	...	5	1	25	13	32	9	22	6	16	4	14	5	153	66
...	...	...	...	1	1	3	2	1	1	1	3	...	...	6	2	18	14
3	1	1	2	4	5	11	11	15	7	24	8	7	1	8	11	105	85
1	...	3	2	2	6	18	11	10	4	8	6	5	3	10	4	83	51
2	2	...	1	3	2	2	9	2	1	4	2	4	7	4	3	39	46
3	7	5	...	4	1	8	14	8	12	10	3	4	1	7	6	61	59
1	1	...	1	1	1	1	...	1	2	4	...	2	2	4	8	29	24
7	5	5	12	4	9	40	31	43	17	39	13	20	8	28	17	222	148
1	3	...	...	3	2	...	3	1	1	4	2	4	1	1	1	24	24
...	...	...	...	...	...	3	...	...	2	4	...	2	1	...	...	11	4
2	...	1	1	1	2	4	5	3	1	2	...	3	1	3	2	29	20
77	65	60	50	63	104	233	202	270	135	233	99	175	78	247	174	1,981	1,474
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5,561	4,884	2,896	2,442	2,781	4,366	6,033	9,744	7,570	6,549	7,048	4,713	6,695	4,558	9,561	6,906	81,947	73,754
14.02	17.54	4.62	5.17	3.74	6.06	17.46	25.57	15.72	15.32	12.44	9.23	12.36	8.19	72.40	52.08	19.57	19.72

in which registration of vital statistics is compulsory.



## IMPERIAL STATEMENT No. V.—Deaths registered according

No.	Districts.	Population according								
		Christians.			Hindus.			Muhammadans.		
		Male.	Female	Total.	Male.	Female.	Total	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10	11
	SURMA VALLEY.									
1	Cachar ...	1,462	1,234	2,696	176,990	157,686	334,676	103,474	92,417	195,891
2	Sylhet...	1,650	1,335	2,985	575,461	537,763	1,113,426	828,123	775,682	1,603,805
	Total ...	3,112	2,569	5,681	752,651	695,451	1,448,102	931,597	868,099	1,799,696
	ASSAM VALLEY.									
3	Goalpara ...	9,796	8,740	18,536	208,376	177,530	385,906	205,386	182,323	337,709
4	Kamrup ...	3,034	2,549	5,583	370,688	339,307	709,995	128,785	111,637	240,442
5	Darrang ...	8,453	7,263	15,716	246,546	209,110	455,656	37,529	29,974	67,503
6	Nowgong ...	2,615	2,428	5,043	172,064	153,052	325,716	95,597	82,165	177,762
7	Sibsagar ...	7,152	6,079	13,231	445,670	395,378	841,048	24,916	18,991	43,907
8	Lakhimpur ...	8,356	6,508	14,864	360,774	300,946	661,720	17,541	8,408	25,949
	Total ...	39,406	33,567	72,973	1,804,718	1,575,323	3,380,041	509,754	433,498	943,252
	Total for the Province ...	42,518	36,136	78,654	2,557,369	2,270,774	4,828,143	1,441,351	1,301,597	2,742,948

## IMPERIAL STATEMENT No. V.—Deaths registered according

No.	Districts.	Number of deaths registered—concl'd.								
		Buddhists.			Other classes.			Total.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	2	30	31	32	33	34	35	36	37	38
	SURMA VALLEY.									
1	Cachar ...	...	...	...	214	174	388	5,147	4,974	10,121
2	Sylhet...	...	...	...	163	158	321	31,994	28,177	60,171
	Total ...	...	...	...	377	332	709	37,141	33,151	70,292
	ASSAM VALLEY.									
3	Goalpara ...	10	3	13	1,989	1,602	3,591	11,433	9,271	20,704
4	Kamrup ...	...	...	...	603	657	1,260	7,121	6,422	13,543
5	Darrang ...	6	11	17	1,200	1,144	2,344	6,285	6,240	12,525
6	Nowgong ...	4	1	5	533	491	1,024	3,314	3,058	6,372
7	Sibsagar ...	43	64	107	1,042	959	2,001	9,067	8,633	17,700
8	Lakhimpur ...	22	20	42	621	604	1,225	7,586	6,979	14,565
	Total ...	85	99	184	5,988	5,457	11,445	44,806	40,603	85,409
	Total for the Province	85	99	184	6,365	5,789	12,154	81,947	73,754	1,55,701



to class in the districts of Assam during the year 1934.

to the Census of 1931.									Number of deaths registered.								
Buddhists.			Other classes.			Total.			Christians.			Hindus.			Muhammadans.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
42	19	61	2,570	2,717	5,487	784,738	254,073	538,811	14	18	32	3,045	3,057	6,102	1,874	1,725	3,599
28	12	40	2,183	1,903	4,086	1,407,645	1,316,697	2,724,342	10	19	29	12,541	11,261	23,802	19,280	16,739	36,019
70	31	101	4,953	4,620	9,573	1,692,383	1,570,770	3,263,153	24	37	61	15,586	14,318	29,904	21,154	18,464	39,618
306	276	582	46,409	43,606	90,015	470,273	412,475	882,748	124	127	251	4,302	3,636	7,938	5,008	3,903	8,911
569	321	790	10,269	9,687	19,956	513,345	463,401	976,746	30	21	51	5,326	4,755	10,081	1,162	989	2,151
805	381	1,186	23,770	20,986	44,756	317,103	267,714	584,817	264	249	513	4,296	4,239	8,585	519	547	1,066
29	4	33	27,680	26,347	54,027	298,585	263,996	562,581	16	30	46	2,039	1,885	3,924	722	651	1,373
1,454	1,159	2,613	17,096	15,431	32,527	496,288	437,038	933,326	123	94	217	7,553	7,237	14,790	306	279	585
3,182	2,463	5,645	9,255	7,149	16,404	399,108	325,474	724,582	154	160	314	6,582	6,024	12,606	257	171	378
6,345	4,504	10,849	134,379	123,306	257,685	2,494,702	2,170,098	4,664,800	711	681	1,392	30,098	27,826	57,924	7,924	6,540	14,464
6,415	4,535	10,950	139,332	127,926	267,258	4,187,085	3,740,868	7,927,953	735	718	1,453	45,684	42,144	87,828	29,078	25,004	54,082

to class in the districts of Assam during the year 1934—concl'd.

Ratio of deaths per 1,000 of population.																	
Christians.			Hindus.			Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
9.57	14.58	11.87	17.20	19.39	18.23	18.11	18.67	18.37	...	...	...	77.20	64.04	70.71	18.08	19.58	18.78
6.06	14.53	9.72	21.79	20.94	21.38	23.28	21.58	22.46	...	...	...	74.67	83.03	78.56	22.73	21.40	22.09
7.71	14.40	10.74	20.71	20.59	20.65	22.71	21.27	22.01	...	...	...	76.12	71.86	74.06	21.95	21.10	21.54
12.66	14.53	13.54	20.65	20.43	20.57	24.38	21.41	22.98	32.68	10.87	22.34	42.86	36.74	39.89	24.31	22.48	23.45
9.88	8.24	9.13	14.37	14.01	14.20	9.02	8.86	8.95	...	...	...	58.72	67.82	63.14	13.87	13.86	13.86
31.23	34.28	32.64	17.42	20.51	18.84	13.83	18.25	15.79	7.45	28.61	14.33	50.48	54.51	52.37	19.82	23.31	21.42
6.12	12.36	9.12	11.81	12.32	12.04	7.55	7.92	7.72	137.93	250.00	151.51	19.25	18.64	18.95	11.10	11.58	11.33
17.20	15.46	16.40	16.95	18.30	17.59	12.28	14.69	13.32	29.57	55.22	40.95	60.95	62.14	61.52	18.27	19.75	18.96
18.43	24.59	21.12	18.24	20.01	19.05	11.80	20.34	14.57	6.91	8.09	7.44	67.09	84.49	74.67	19.01	21.44	20.10
18.04	20.29	19.08	16.68	17.66	17.14	15.54	15.09	15.33	13.40	21.98	16.96	44.56	44.26	44.41	13.95	18.71	18.31
17.29	19.87	18.47	17.86	18.55	18.19	20.17	19.21	19.71	13.25	21.83	16.80	45.68	45.25	45.47	19.57	19.72	19.64



## IMPERIAL STATEMENT No. VI.—Deaths registered from different

1	2	3	4			5	6	7	8	9	10	
No.	Districts and towns.	Population according to the Census of 1931.	Births.			Birth-rate.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.
			Male.	Female.	Total.							
DISTRICTS EXCLUDING TOWNS.												
SURMA VALLEY.												
1	Cachar ... ..	522,616	9,365	8,801	18,166	34·76	19	...	...	5,203	578	844
2	Sylhet ... ..	2,679,999	48,574	44,852	93,426	34·86	1,189	56	...	35,008	2,469	1,362
	Total ... ..	3,202,615	57,939	53,653	111,592	34·84	1,208	5	...	40,211	3,047	2,206
ASSAM VALLEY.												
3	Goalpara ... ..	861,306	15,445	14,298	29,743	34·53	418	6	...	19,262	120	91
4	Kamrup ... ..	937,718	9,803	9,392	19,195	20·47	88	72	...	10,737	300	167
5	Darrang ... ..	572,853	9,863	9,213	19,076	33·30	28	41	...	8,071	740	687
6	Nowgong ... ..	552,168	5,288	4,753	10,041	18·18	22	7	...	5,038	293	165
7	Sibsagar ... ..	910,151	13,552	12,486	26,038	28·61	87	10	...	10,179	1,981	1,216
8	Lakhimpur ... ..	696,668	10,590	10,222	20,812	29·87	53	8	...	7,238	1,411	1,418
	Total ... ..	4,530,864	64,541	60,364	124,905	27·57	676	144	...	60,525	4,845	3,744
	Total of districts excluding towns.	7,733,479	122,480	114,017	236,497	30·58	1,884	200	...	100,736	7,892	5,950
TOWNS.												
SURMA VALLEY.												
1	Silchar ... ..	13,069	132	118	250	19·13	...	...	...	28	10	28
2	Hailakandi ... ..	2,002	45	29	74	36·96	...	...	...	9	3	4
3	Haflong ... ..	1,124	19	33	52	46·26	...	...	...	6	1	10
4	Sylhet ... ..	21,435	321	273	594	27·71	1	...	...	69	24	31
5	Karimganj ... ..	5,691	100	101	201	35·32	...	...	...	41	10	6
6	Maulvi Bazar ... ..	4,314	67	63	130	30·13	6	...	...	13	8	3
7	Habiganj ... ..	7,577	142	121	263	34·71	1	...	...	50	9	11
8	Sunamganj ... ..	5,326	86	87	173	32·48	2	...	...	34	8	...
	Total ... ..	60,538	912	825	1,737	28·69	10	...	...	250	73	93



causes in the districts and towns of the province of Assam during the year 1934.

11						12	13	14											15
Injuries.						All other causes.	Total.	Ratio of deaths per 1,000 of population.											No.
Suicide.		Wounds and accidents.	Rabies.	Snakes and wild animals.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.			
Male.	Female.															For the year.	Mean of previous five years.		
	3	122	4	12	149	3,117	9,910	·04	...	...	9·95	1·11	1·61	·28	5·96	18·96	21·28	1	
53	39	853	12	90	1,047	18,294	59,425	·44	·02	...	13·06	·92	·51	·39	6·83	22·17	21·61	2	
61	42	975	16	102	1,106	21,411	69,335	·38	·02	...	12·55	·95	·69	·37	6·69	21·65	21·56		
30	25	57	2	46	160	316	20,773	·49	·01	...	22·36	·14	·11	·19	·37	23·65	22·44	3	
31	25	86	17	41	200	1,127	12,691	·09	·08	..	11·45	·32	·18	·21	1·22	13·53	13·54	4	
15	10	76	7	36	144	2,563	12,274	·05	·07	...	14·09	1·29	1·19	·25	4·47	21·42	19·007	5	
5	5	39	6	14	69	588	6,182	·04	·01	...	9·12	·53	·29	·12	1·06	11·19	13·31	6	
34	18	112	12	25	201	3,634	17,308	·09	·01	...	11·18	2·17	1·34	·22	3·99	19·02	16·64	7	
29	31	112	14	23	209	3,766	14,083	·05	·01	...	10·39	2·03	2·04	·29	5·41	20·21	17·83	8	
144	114	482	58	185	983	11,994	82,911	·15	·03	...	13·36	1·07	·83	·22	2·65	18·30	17·13		
205	156	1,457	74	287	2,179	33,405	152,246	·24	·03	...	13·03	1·02	·77	·28	4·32	19·69	18·96		
...	...	7	...	...	7	79	152	...	...	...	2·14	·76	2·14	·53	6·04	11·63	10·94	1	
...	...	1	...	...	1	14	31	...	...	...	4·49	1·50	1·99	·49	6·99	15·48	16·98	2	
...	...	...	...	...	...	11	28	...	...	...	5·34	·89	8·89	...	9·78	24·90	8·89	3	
3	2	8	1	...	14	179	318	·05	...	...	3·22	1·12	1·45	·65	8·35	14·84	14·01	4	
...	...	7	...	1	8	45	110	...	...	...	7·21	1·76	1·05	1·41	7·91	19·33	15·99	5	
...	...	...	...	...	...	36	66	1·39	...	...	3·01	1·85	·70	...	8·34	15·29	13·91	6	
...	...	8	1	...	9	71	151	13	...	...	6·60	1·19	1·45	1·19	9·37	19·93	17·42	7	
1	...	5	...	...	6	51	101	·38	...	...	6·38	1·50	...	1·13	9·58	18·97	19·34	8	
4	2	36	2	1	45	486	957	·17	...	...	4·13	1·21	1·54	·74	8·03	15·81	14·44		



## IMPERIAL STATEMENT No. VI.—Deaths registered from different causes

1	2	3	4			5	6	7	8	9	10	
No.	Districts and towns.	Population according to the Census of 1931.	Births.			Birth-rate.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.
			Male.	Female.	Total.							
9	TOWNS—concl'd. ASSAM VALLEY. Dhubri ... ..	9,425	168	153	321	34.02	...	...	...	25	21	26
10	Goalpara ... ..	6,415	99	89	188	29.31	2	2	...	42	4	17
11	Gauripur ... ..	5,592	72	88	160	28.61	...	...	...	43	6	1
12	Gauhati ... ..	21,797	338	351	739	33.90	2	...	...	98	41	73
13	Barpeta ... ..	13,777	453	423	876	63.58	4	4	...	194	34	28
14	Palasbari ... ..	3,454	66	88	154	44.50	2	...	...	35	7	7
15	Tezpur ... ..	10,268	173	156	329	32.04	...	...	...	25	23	51
16	Mangaldai ... ..	1,696	26	21	47	27.71	...	...	...	14	4	2
17	Nowgong ... ..	10,413	182	185	367	35.24	...	...	...	31	17	46
18	Jorhat ... ..	8,334	154	110	264	31.68	...	...	...	29	13	10
19	Sibsagar ... ..	6,669	106	94	200	29.99	...	...	...	65	2	11
20	Golaghat ... ..	4,688	74	68	142	30.29	...	...	...	33	9	17
21	Nazira... ..	3,484	46	51	97	27.84	...	...	...	35	1	2
22	Dibrugarh ... ..	18,734	255	202	457	24.39	...	...	...	74	37	92
23	North Lakhimpur ... ..	2,120	26	32	58	27.35	...	...	...	13	2	7
24	Doom Dooma ... ..	1,900	11	10	21	11.05	...	...	...	10	1	...
25	Tinsukia ... ..	5,160	49	53	102	19.76	...	...	...	27	8	7
	Total ... ..	133,936	2,348	2,174	4,522	33.76	10	6	...	793	230	397
	Total for the towns...	194,474	3,260	2,999	6,259	32.18	20	6	...	1,043	303	490
	Total for the Province...	7927,953	125,740	117,016	242,756	30.62	1,904	206	...	101,779	8,195	6,440

This table includes municipalities and small towns in which

## Supplementary (optional) Statement

Towns.		1		2		3		4		5		6	
		Malaria.		Enteric fever.		Measles.		Relapsing fever.		Kala azar.		Other fevers.	
		Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
Silchar	...	20	...	3	...	...	...	...	...	1	...	4	...
Sylhet	...	3	...	7	...	...	...	...	...	1	...	58	...
Habiganj	...	37	...	...	...	2	...	...	...	...	...	11	...
Karimganj	...	19	...	1	...	...	...	...	...	3	...	18	...
Gauhati	...	17	...	4	...	1	...	...	...	9	...	67	...
Barpeta	...	63	...	...	...	...	...	...	...	1	...	130	...
Dhubri	...	13	...	4	...	...	...	...	...	3	...	5	...
Goalpara	...	40	...	...	...	...	...	...	...	...	...	2	...
Tezpur	...	15	...	2	...	...	...	...	...	6	...	2	...
Nowgong	...	21	...	5	...	...	...	...	...	5	...	...	...
Jorhat	...	4	...	1	...	...	...	1	...	3	...	20	...
Dibrugarh	...	6	...	12	...	...	...	...	...	...	...	56	...
Shillong	...	13	...	3	...	1	...	...	...	2	...	28	...

This table includes municipalities and small towns in which



in the districts and towns of the province of Assam during the year 1934—concluded.

11						12	13	14										15	
		Injuries.						Ratio of deaths per 1,000 of population.											
Suicide.		Wounds and accidents.	Rabies.	Snakes and wild animals.	Total.	All other causes.	Total.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.		Number.	
Male.	Female.															For the year.	Mean of previous five years.		
1	...	9	...	...	10	82	164	...	...	...	2.65	2.23	2.76	1.06	8.69	17.38	17.38	9	
...	...	1	...	...	1	15	83	.31	.31	...	6.55	.62	2.65	.16	2.34	12.94	14.34	10	
...	...	...	...	...	...	34	84	...	...	...	7.69	1.07	.18	...	6.08	15.02	18.41	11	
...	...	15	...	...	15	192	421	.09	...	...	4.49	1.88	3.35	.69	8.81	19.32	16.33	12	
1	...	14	...	...	15	80	359	.29	.29	...	14.03	2.47	2.03	1.09	5.81	26.06	23.43	13	
...	1	...	...	...	1	20	72	.58	...	...	10.13	2.03	2.03	.29	5.79	20.84	18.53	14	
...	...	12	...	1	13	107	219	...	...	...	2.43	2.24	4.97	1.27	10.42	21.33	23.47	15	
...	...	2	1	...	3	9	32	...	...	...	8.25	2.35	1.18	1.77	5.31	18.87	18.87	16	
...	1	4	...	1	6	90	190	...	...	...	2.98	1.63	4.42	.57	8.64	18.24	18.82	17	
1	...	6	...	...	7	75	134	...	...	...	3.48	1.56	1.20	.84	8.99	16.08	15.34	18	
...	...	...	...	...	...	7	85	...	...	...	9.74	.30	1.65	...	1.05	12.75	12.87	19	
...	...	3	...	...	3	58	120	...	...	...	7.04	1.91	3.62	.64	12.37	25.59	16.64	20	
...	...	1	...	...	1	14	53	...	...	...	10.04	.29	.57	.28	4.02	15.21	14.92	21	
...	...	16	...	...	16	151	370	...	...	...	3.95	1.98	4.91	.85	8.06	19.75	18.58	22	
...	...	...	...	...	...	26	43	...	...	...	6.13	.94	3.32	...	13.26	22.64	21.22	23	
...	...	...	...	...	...	4	15	...	...	...	5.23	.33	...	...	2.11	7.89	14.74	24	
...	...	2	...	...	2	5	49	...	...	...	5.23	1.55	1.35	.39	.97	9.50	8.53	25	
3	2	85	1	2	93	969	2,498	.07	.04	...	5.92	1.72	2.96	.69	7.23	18.65	17.14		
7	4	121	3	3	138	1,455	3,455	.10	.03	...	5.36	1.56	2.52	.71	7.48	17.77	16.64		
212	160	1,578	77	290	2,317	34,861	155,701	.24	.03	...	12.84	1.05	.81	.29	4.40	19.64	18.90		

registration of vital statistics is compulsory.

VI(a) for the year 1934.

7		8		9		10		11		12	Deaths under one year.			Infant mortality rate.
Dysentery.		Diarrhœa.		Pneumonia.		Phthisis.		Other respiratory diseases.		Deaths from child-birth.				
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.		Male.	Female.	Total.	
5	...	5	...	11	...	6	...	11	...	7	15	11	26	104.00
17	...	7	...	10	...	3	...	18	...	12	58	40	98	164.98
6	...	3	...	6	...	4	...	1	...	4	25	12	37	140.68
7	...	3	...	4	...	1	...	1	...	5	16	15	31	154.23
26	...	15	...	37	...	22	...	14	...	10	53	43	96	129.90
23	...	11	...	21	...	5	...	2	...	5	34	43	77	87.89
17	...	4	...	10	...	6	...	10	...	2	31	19	50	155.76
4	...	...	...	13	...	4	...	...	...	...	13	5	18	95.74
19	...	4	...	19	...	14	...	18	...	6	26	20	46	139.81
14	...	3	...	38	...	4	...	4	...	6	24	27	51	138.96
6	...	7	...	5	...	5	...	...	...	4	18	9	27	102.27
29	...	8	...	35	...	36	...	21	...	12	23	21	44	96.28
11	...	5	...	54	...	15	...	23	...	2	28	14	42	60.69

registration of vital statistics is compulsory.



## IMPERIAL STATEMENT No. VII.—Deaths registered from Cholera in the

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.					
1	2	3	4	5	6	7	8	9	10	11
SURMA VALLEY.										
1	Cachar ...	13	4	1,607	12	8	...	...	...	...
2	Sylhet ...	40	36	11,717	377	494	162	15	52	45
	Total ...	53	40	13,324	389	502	162	115	12	45
ASSAM VALLEY.										
3	Goalpara ...	18	13	3,188	248	...	...	2	..	2
4	Kamrup ...	16	13	2,739	41	2	3	11	10	10
5	Darrang ...	14	6	1,978	33	...	4	4	4	2
6	Nowgong ...	12	5	2,323	6	...	...	4	...	1
7	Sibsagar ...	17	6	2,284	6	1	4	1	2	5
8	Lakhimpur ...	17	1	2,498	2	1	...	...	7	1
	Total ...	94	44	15,009	336	4	11	22	23	21
	Total for the Province	147	84	28,333	725	506	173	137	75	66

## IMPERIAL STATEMENT No. VIII.—Deaths registered from

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.							
1	2	3	4	5	6	7	8	9	10	11	12	13
SURMA VALLEY.												
1	Cachar ...	13	...	1,607	1	...	...	...	...	...	...	...
2	Sylhet ...	40	14	11,717	23	2	6	7	14	6	5	7
	Total ...	53	14	13,324	24	2	6	7	14	6	5	7
ASSAM VALLEY.												
3	Goalpara ...	18	6	3,188	13	...	...	...	2	...	4	...
4	Kamrup ...	16	11	2,738	10	3	2	12	12	...	5	8
5	Darrang ...	14	8	1,978	29	6	2	...	2	5	5	2
6	Nowgong ...	12	4	2,323	4	...	...	...	...	...	1	1
7	Sibsagar ...	17	5	2,284	5	2	4	...	...	2	...	...
8	Lakhimpur ...	17	1	2,498	2	...	...	...	..	1	1	4
	Total ...	94	35	15,009	63	11	8	12	16	8	16	15
	Total for the Province	147	49	28,333	87	13	14	19	30	14	21	22



*districts of Assam during each month of the year 1934.*

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
...	..	...	...	...	...	11	11	8	19	·04	·03	·03	·61	1
37	17	9	6	4	14	244	621	578	1,199	·44	·44	·44	1·20	2
37	17	9	6	4	14	255	632	586	1,218	·37	·37	·37	1·11	
2	...	...	...	16	108	220	206	214	420	·44	·52	·48	·80	3
6	4	1	8	...	10	31	53	33	96	·11	·08	·09	1·12	4
1	...	2	1	8	1	1	17	11	28	·05	·04	·05	·51	5
...	1	...	...	...	...	16	13	9	22	·04	·04	·04	·18	6
4	18	25	24	...	1	2	45	42	87	·09	·10	·09	·17	7
6	5	2	5	5	...	1	17	16	33	·04	·04	·05	·07	8
19	28	30	38	29	120	341	356	330	686	·14	·15	·15	·52	
56	45	39	44	33	134	596	983	916	1,904	·24	·24	·24	·76	

*Small-pox in the districts of Assam during each month of the year 1934.*

August.	September.	October.	November.	December.	Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
					Male.	Female.	Total.	Under 1 year.	One to 10 years.	Male.	Female.	Total.		
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
...	...	...	...	...	...	...	...	...	...	...	...	...	·11	1
5	3	1	...	...	31	25	56	...	...	·02	·02	·02	·08	2
5	3	1	...	...	31	25	56	...	...	·02	·02	·02	·08	
...	...	...	...	2	4	4	8	2	4	·01	·01	·01	·25	3
12	...	...	5	17	43	33	76	12	10	·08	·07	·08	·18	4
4	6	1	...	8	19	22	41	...	...	·06	·08	·07	·06	5
1	...	1	1	2	3	4	7	1	...	·01	·02	·01	·002	6
...	...	1	...	1	7	3	10	...	...	·01	·01	·01	·04	7
...	...	...	2	...	1	7	8	...	...	·002	·02	·01	·12	8
17	6	3	8	30	77	73	150	15	14	·03	·03	·03	·13	
22	9	4	8	30	108	98	206	15	14	·03	·03	·03	·11	



## IMPERIAL STATEMENT No. IX.—Deaths registered from Fevers

Number.	Districts.			Circles of Registration.		Villages.		January.	February.	March.	April.	May.
				Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.					
1	2			3	4	5	6	7	8	9	10	11
	SURMA VALLEY.											
1	Cachar	...	...	13	13	1,607	705	548	354	334	401	535
2	Sylhet	...	...	40	39	11,717	9,993	3,629	3,092	2,323	2,528	2,734
	Total	...	...	53	52	13,324	10,698	4,177	3,446	2,657	2,929	3,269
	ASSAM VALLEY.											
3	Goalpara	...	...	18	17	3,188	8,001	1,744	1,454	1,384	1,855	1,694
4	Kamrup	...	...	16	15	2,738	709	792	607	709	950	1,593
5	Darrang	...	...	14	13	1,978	1,302	548	422	525	677	951
6	Nowgong	...	...	12	11	2,323	82	397	322	471	529	550
7	Sibsagar	...	...	17	16	2,284	751	702	635	686	691	1,119
8	Lakhimpur	...	...	17	17	2,498	1,690	463	394	434	382	787
	Total	...	...	94	89	15,009	12,535	4,646	3,834	4,239	5,034	6,694
	Total for the Province	...	...	147	141	28,333	23,233	8,823	7,280	6,956	8,013	9,963

## IMPERIAL STATEMENT No. X.—Deaths registered from

Number.	Districts.			Circles of Registration.		Villages.		January.	February.	March.	April.	May.
				Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.	Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.					
1	2			3	4	5	6	7	8	9	10	11
	SURMA VALLEY.											
1	Cachar	...	...	13	12	1,607	160	58	48	38	55	52
2	Sylhet	...	...	40	39	11,717	1,854	308	239	158	212	164
	Total	...	...	53	51	13,324	2,014	366	287	196	267	216
	ASSAM VALLEY.											
3	Goalpara	...	...	18	13	3,188	94	11	4	4	12	14
4	Kamrup	...	...	16	15	2,738	58	25	21	41	15	40
5	Darrang	...	...	14	13	1,978	179	39	12	57	60	54
6	Nowgong	...	...	12	11	2,323	27	10	15	17	27	40
7	Sibsagar	...	...	17	16	2,284	254	96	171	112	183	148
8	Lakhimpur	...	...	17	16	2,498	142	76	61	107	118	148
	Total	...	...	94	84	15,009	754	257	284	338	415	444
	Total for the Province	...	...	147	135	28,333	2,768	623	571	534	682	660



*in the districts of Assam during each month of the year 1934.*

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
465	470	368	349	417	462	543	2,723	2,523	5,246	9.56	9.93	9.74	10.96	1
2,793	3,317	2,753	3,195	2,652	2,995	3,174	19,051	16,164	35,215	13.53	12.27	12.93	11.66	2
3,258	3,787	3,121	3,544	3,099	3,457	3,717	21,774	18,687	40,461	12.87	11.90	12.40	11.55	
1,604	1,726	1,585	1,458	1,516	1,414	1,938	10,718	8,654	19,372	22.79	20.98	21.95	19.89	3
1,276	1,297	801	779	673	743	754	5,782	5,282	11,064	11.26	11.40	11.33	9.81	4
1,531	748	469	440	521	618	651	4,077	4,033	8,110	12.86	15.06	13.87	12.58	5
586	435	421	355	402	316	285	2,621	2,448	5,069	8.78	9.27	9.01	10.70	6
1,052	1,260	967	879	938	623	784	5,346	4,995	10,341	10.77	11.43	11.07	9.41	7
820	723	662	783	729	644	541	3,871	3,401	7,362	9.70	10.72	10.16	9.30	8
6,869	6,189	4,905	4,703	4,779	4,363	4,953	32,415	28,903	61,318	12.99	13.32	13.14	12.01	
10,127	9,976	8,026	8,247	7,878	7,820	8,670	54,189	47,590	1,01,779	12.94	12.72	12.84	11.82	

*Dysentery and Diarrhœa in the districts of Assam during each month of the year 1934.*

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
55	42	42	37	43	65	57	292	300	592	1.03	1.18	1.09	2.00	1
158	198	168	171	190	314	248	1,396	1,132	2,528	.99	.86	.93	1.06	2
213	240	210	208	233	379	305	1,688	1,432	3,120	1.00	.91	.96	1.21	
24	10	18	10	11	27	6	93	58	151	.20	.14	.17	.26	3
58	37	23	31	26	31	34	204	178	382	.40	.38	.39	.56	4
90	79	98	49	79	71	79	406	361	767	1.28	1.24	1.31	1.54	5
34	34	37	24	32	24	16	162	148	310	.54	.56	.55	.49	6
175	219	212	214	192	133	151	1,042	964	2,006	2.09	2.20	2.15	2.01	7
156	135	133	132	147	150	96	800	659	1,459	2.004	2.02	2.01	1.98	8
537	514	521	460	487	436	382	2,707	2,368	5,075	1.09	1.09	1.09	1.13	
750	754	731	668	720	815	687	4,395	3,800	8,195	1.05	1.02	1.03	1.16	



## IMPERIAL STATEMENT No. XI.—Deaths registered from

Number.	Districts.		Circles of Registration.		Villages.		January.	February.	March.	April.	May.
			Number in each district.	Number from which deaths from respiratory diseases were reported.	Number in each district.	Number from which deaths from respiratory diseases were reported.					
1	2		3	4	5	6	7	8	9	10	11
SURMA VALLEY.											
1	Cachar	...	13	12	1,607	125	99	92	64	75	72
2	Sylhet	...	40	35	11,717	524	89	152	160	152	65
	Total	...	53	47	13,324	649	188	244	224	227	137
ASSAM VALLEY.											
3	Goalpara	...	18	14	3,188	63	14	11	15	7	9
4	Kamrup	...	16	15	2,738	30	31	20	27	10	27
5	Darrang	...	14	12	1,978	109	89	59	79	57	15
6	Nowgong	...	12	9	2,323	22	21	12	24	30	11
7	Sibsagar	...	17	15	2,284	161	86	114	133	121	115
8	Lakhimpur	...	17	15	2,498	74	103	95	156	173	148
	Total	...	94	80	15,009	399	344	311	434	398	325
	Total for the Province	...	147	127	28,333	1,048	532	555	658	625	462

## IMPERIAL STATEMENT No. XII.—Deaths registered from plague

Number	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.
		Number in each district.	Number from which deaths from plague were reported.	Number in each district.	Number from which deaths from plague were reported.					
1	2	3	4	5	6	7	8	9	10	11
	SURMA VALLEY.									
1	Cachar ... ..	13	...	1,607	...	...	...	...	...	...
2	Sylhet ... ..	40	...	11,717	...	...	...	...	...	...
	Total ... ..	53	...	13,324	...	...	...	...	...	...
	ASSAM VALLEY.									
3	Goalpara ... ..	18	...	3,188	...	...	...	...	...	...
4	Kamrup ... ..	16	...	2,738	...	...	...	...	...	...
5	Darrang ... ..	14	...	1,978	...	...	...	...	...	...
6	Nowgong... ..	12	...	2,323	...	...	...	...	...	...
7	Sibsagar ... ..	17	...	2,284	...	...	...	...	...	...
8	Lakhimpur ... ..	17	...	2,498	...	...	...	...	...	...
	Total ... ..	94	...	15,009	...	...	...	...	...	...
	Total for the Province ...	147	...	28,333	...	...	...	...	...	...







## APPENDIX II.

## PROVINCIAL.

*Statement showing details of registration in compulsory areas.*

Compulsory registration area.			Population according to the Census of 1931.	Estimated birth at 288 per 1,000 married women between the ages of 15 and 40.	Number of births registered during the year.	Estimated birth-rate per mille.	Registered birth-rate per mille.	Number of deaths registered during the year.		Death-rate per mille.		Number of prosecutions under Act IV (B.C.) of 1873.	Number of convictions.
1			2	3	4	5	6	Including deaths in hospitals.	Excluding deaths in hospitals.	Including deaths in hospitals.	Excluding deaths in hospitals.	11	12
Silchar	...	...	13,069	Not available.	250	Not available.	19.13	152	106	11.63	8.11	7	7
Hailakandi	...	...	2,002		74		36.96	31	20	15.48	9.99	1	...
Haflong ..	...	...	1,124		52		46.26	28	18	24.90	16.01	15	...
Sylhet	...	...	21,435		594		27.71	318	273	14.84	12.74	20	10
Karimganj	...	...	5,691		201		35.32	110	86	19.33	15.11	18	18
Maulvi Bazar	...	...	4,314		130		30.13	66	55	15.29	12.75	19	14
Habiganj	...	...	7,577		263		34.71	151	127	19.93	16.76	20	18
Sunamganj	...	...	5,326		173		32.48	101	82	18.97	15.40	5	1
Dhubri	...	..	9,435		321		34.02	164	118	17.38	13.51	54	29
Goalpara	...	...	6,415		188		29.31	83	61	12.94	9.51	4	3
Gauripur	...	...	5,592		160		28.61	84	84	15.02	15.02	...	...
Gauhati	...	...	21,797		739		28.90	421	329	19.32	15.09	47	47
Barpeta	...	...	13,777		876		63.58	359	341	26.06	24.76	21	21
Palasbari	...	...	3,454		154		44.50	72	72	20.84	20.85	18	18
Tezpur	..	...	10,268		329		32.04	219	155	21.33	15.09	23	19
Mangaldai	...	...	1,606		47		27.71	32	15	18.87	8.84	10	9
Nowgong	...	...	10,413		367		35.24	190	134	18.4	12.36	21	21
Sibsagar	...	...	6,639		200		29.99	85	58	12.75	8.73	16	8
Nazira	...	...	3,484		97		27.84	53	53	15.21	15.21	1	1
Jorhat	...	...	8,334		264		31.68	134	93	16.08	11.16	10	7
Golaghat	...	...	4,683		142		30.29	120	83	25.59	17.70	22	12
Dibrugarh	...	...	18,734		457		24.39	370	209	19.75	11.16	14	12
Doom Dooma	...	...	1,900		21		11.05	15	15	7.89	7.89	12	12
North Lakhimpur...	...	...	2,120		53		27.35	48	39	22.64	18.39	5	5
Tinsukia	...	...	5,160		102		19.76	49	49	9.50	9.50	13	7
Total	...	...	194,474		6,259		32.18	3,455	2,675	17.77	13.75	396	299







IMPERIAL STATEMENT No. I.—*Showing particulars of vaccinations in*

No.	Districts or towns.	Population of district according to census of 1931.	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary		
				Males.	Females.	Total.		Total.	Suc-	
									Under one year.	One year and under six years.
1	2	3	4	5	6	7	8	9	10	11
TOWNS.										
SUBMA VALLEY AND HILL DIVISION.										
1	Cachar ... ..	16,195	1	528	300	828	828	478	118	335
2	Sylhet ... ..	44,343	6	4,430	685	5,115	852	1,546	447	618
3	Khasi and Jaintia Hills ... ..	24,324	1	3,296	1,998	5,294	5,294	1,504	546	589
4	Naga Hills ... ..	3,194	...	553	177	730	...	276	5	87
Total of Surma Valley and Hill Division.		88,056	8	8,807	3,160	11,967	1,496	3,804	1,116	1,629
ASSAM VALLEY DIVISION.										
5	Goalpara ... ..	21,442	3	656	484	1,140	380	574	291	203
6	Kamrup ... ..	39,028	3	858	695	1,553	518	1,211	309	880
7	Darrang ... ..	11,964	2	192	172	364	182	338	104	214
8	Nowgong ... ..	10,413	1	996	424	1,420	1,420	385	258	85
9	Sibsagar ... ..	23,175	4	298	177	475	119	201	53	119
10	Lakhimpur ... ..	27,914	5	435	365	800	160	597	298	230
11	Garó Hills ... ..	2,358	...	162	18	180	...	25	4	10
Total of Assam Valley Division ...		136,294	18	3,597	2,335	5,932	330	3,304	1,317	1,741
12	Manipur State ... ..	95,668	3	2,835	1,344	4,179	1,393	2,432	1,837	519
13	Sadiya Frontier Tract ... ..	4,370	4	1,987	833	2,820	705	241	15	73



## DEPARTMENT.

*the Province of Assam during the year 1934-35.*

Vaccinations.		Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations and re-vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Successful.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.				
12	13	14	15	16	17	18	19	20	21	22
								Rs. a. p.		R. a. p.
464	10	350	64	88	99.15	24.43	32.60	393 0 0	528	0 11 10
1,404	59	3,569	1,189	461	94.42	38.26	58.48	6,498 0 0	39,647	0 2 7
1,417	71	3,790	1,498	610	98.88	47.11	119.84	1,466 12 8	6,243	0 3 7
92	1	454	320	134	33.45	100.00	128.99	.....	...	...
3,377	14	8,163	3,071	1,293	92.19	44.70	73.23	8,357 12 8	46,418	0 2 11
535	3	566	223	38	93.70	42.23	35.35	533 0 0	758	0 11 3
1,189	5	342	53	41	98.59	17.61	31.82	669 7 0	1,242	0 8 7
320	...	26	12	...	94.67	46.15	27.75	414 12 6	332	1 3 11
357	1	1,062	579	22	100.00	55.67	89.89	330 4 0	936	0 5 7
174	8	274	180	140	90.16	134.33	15.28	3,202 3 9	12,293	0 4 2
587	...	203	102	8	98.32	52.31	24.68	669 12 6	689	0 15 6
14	11	155	81	37	100.00	68.64	40.29	...	...	...
3,176	28	2,628	1,230	286	96.95	52.52	32.33	5,819 7 9	16,250	0 5 9
29	28	1,747	1,554	43	1.21	91.20	16.55	765 5 0	3,939	0 3 1
15	33	2,579	1,562	434	7.21	72.82	360.87	1,825 0 0	2,445	0 12 0



## Statement No. I.—Showing particulars of Vaccinations in

No.	District.	Population of district according to the census of 1881.	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary	
				Male.	Female.	Total.		Total.	Under one year.
1	2	3	4	5	6	7	8	9	10
<b>RURAL AREAS EXCLUDING TOWNS.</b>									
<b>SURMA VALLEY AND HILL DIVISION.</b>									
1	Cachar ...	554,336	30	23,249	15,699	38,948	1,298	18,196	1,583
2	Sylhet ...	267,999	98	81,264	67,128	148,392	1,514	101,690	6,467
3	Khasi and Jaintia Hills ...	265,602	8	9,008	10,015	19,023	2,378	9,201	1,758
4	Naga Hills...	175,650	6	5,013	4,333	9,346	1,558	6,960	803
5	Lushai Hills ...	124,404	8	7,248	4,072	11,320	1,415	7,026	1,215
Total of Surma Valley and Hill Division		3,799,991	150	125,782	101,247	227,029	1,514	143,073	11,826
<b>ASSAM VALLEY DIVISION.</b>									
6	Goalpara ...	861,306	53	65,423	52,656	118,081	2,228	42,909	4,431
7	Kamrup ...	937,718	45	30,453	24,982	55,435	1,232	41,170	4,346
8	Darrang ...	572,853	34	31,891	26,615	58,506	1,721	21,904	2,581
9	Nowgong ...	552,168	26	23,531	17,049	40,580	1,561	30,039	7,791
10	Sibsagar ...	910,151	45	27,005	21,252	48,257	1,072	35,751	2,170
11	Lakhimpur...	696,668	32	19,117	16,922	36,039	1,126	31,769	5,076
12	Garro Hills ...	188,553	7	13,101	11,882	24,983	3,569	8,659	4,774
Total of Assam Valley Division		4,719,417	242	210,523	171,358	381,881	1,578	212,201	31,169
13	Manipur State ...	349,938	14	11,623	7,463	19,086	1,363	13,697	8,088
14	Sadiya Frontier Tract ...	48,975	4	2,647	723	3,370	842	1,744	119
15	Balipara Frontier Tract...	5,148	1	266	182	448	448	308	49
Total Vaccine Department		9,247,857	444	368,067	288,645	656,712	1,479	380,804	55,536
Total of Dispensary staff		...	...	...	...	7,263	...	2,285	816
Total tea gardens by garden agencies		...	...	18,703	17,723	36,426	...	28,406	15,037
Total Jails, Mental hospitals, Police hospitals and infectious diseases hospitals,		...	...	3,791	109	3,900	...	178	15
Total of Railway Dispensaries		...	...	466	169	635	...	112	55
Total of private Medical practitioners		...	...	...	...	...	...	...	...
Shillong Vaccine Depot		...	...	...	...	...	...	...	...
Grand total		9,247,857	444	391,027	306,646	704,936	1,588	411,785	71,459

Sum

1	Total number of persons vaccinated.		Total number of operations performed.		Percentage cases in which were
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.
1	2	3	4	5	6
<b>By SPECIAL STAFF—</b>					
Districts excluding towns ...	371,023	260,791	371,023	260,791	91.20
Towns ...	9,781	15,117	9,781	15,117	69.07
Total	380,804	275,908	380,804	275,903	90.62
By dispensary staff ...	2,285	4,978	2,285	4,978	93.90
By private Medical practitioners ...	...	...	...	...	...
By Railway dispensaries ...	112	523	112	523	81.25
By other agencies, Tea-gardens, Jail hospitals, Police hospitals, Mental hospitals and infectious diseases hospitals.	28,584	11,742	28,584	11,742	96.69
Total	30,981	17,243	30,981	17,243	96.45
Shillong Vaccine Depot ...	...	...	...	...	...
Grand total	411,785	293,151	411,785	293,151	91.07



## DEPARTMENT.

*the Province of Assam during the year 1934-35.*

vaccination.			Re-vaccination.			Percentage of success- ful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of vaccination department.	Number of all successfull vacci- nations and re- vaccinations performed by the vaccination staff only.	Average cost of each successfnl case performed by the vaccina- tion staff.
Successful.		Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.				
Over one and under six years.	Total of all ages.										
11	12	13	14	15	16	17	18	19	20	21	22
									Rs. as. p.		Rs. a. p.
12,953	16,933	490	20,752	9,541	2,012	95·63	50·91	47·76	6,630 14 3	26,474	0 4 0
76,312	95,176	3,163	46,702	22,601	8,164	96·60	58·65	43·95	12,405 0 9	79,294	0 2 6
5,590	9,173	...	9,822	6,347	162	99·70	65·70	58·43	2,933 9 4	12,488	0 3 9
5,058	5,861	235	2,386	2,273	113	87·15	100·00	46·31	2,146 5 0	7,861	0 4 4
3,824	1,987	573	4,294	2,330	407	30·79	59·94	34 70	2,244 12 0	9,356	0 3 10
103,737	129,130	4,461	83,956	43,092	10,858	93·16	58·95	45·32	26,316 9 4	135,473	0 3 1
22,794	35,622	5,512	75,172	38,074	17,870	95·25	66·44	85·56	11,447 9 9	73,696	0 2 6
27,930	37,387	2,191	14,265	7,905	3,210	95·92	71·51	48·30	9,433 5 6	45,292	0 3 4
11,915	18,712	1,449	36,602	19,344	7,035	91·48	65·42	66·43	7,899 7 0	38,056	0 3 4
17,231	29,278	...	10,541	8,197	14	97·47	77·87	67·87	5,359 2 0	36,634	0 2 4
25,215	31,563	2,122	12,506	5,022	2,687	93·86	51·15	40·20	6,404 7 6	24,586	C 4 2
22,083	30,883	355	4,270	2,850	461	98·31	74 82	48·42	5,753 2 0	33,733	0 2 9
2,854	7,628	458	16,324	11,132	1,606	93·01	75·64	99·49	2,110 11 3	18,371	0 1 10
130,022	191,073	12,087	169,680	92,524	32,883	95·48	67·64	60·09	48,407 13 0	270,368	0 2 10
3,814	898	490	5,389	4,383	384	6·80	87·57	15·09	3,571 7 0	17,183	0 3 3
698	817	691	1,626	1,110	271	77·59	81·18	39·14	1,835 0 0	2,684	0 10 11
167	290	5	140	110	4	95·71	80·88	77·70	129 3 6	400	0 5 2
242,400	328,805	17,964	275,908	148,626	46,456	90·62	64 77	51·63	97,081 10 3	495,160	0 3 2
921	1,861	303	4,978	1,564	2,183	93·90	55·96	...	.....	...	...
11,273	27,450	89	8,020	5,104	399	96·94	66·97	...	.....	...	...
57	97	5	3,722	1,407	491	56·07	43 55	...	.....	...	...
41	91	...	523	162	24	81·25	32·46	...	.....	...	...
...	...	...	...	...	...	...	...	...	.....	...	...
...	...	...	...	...	...	...	...	...	18,677 6 3	...	...
254,692	358,304	18,361	293,151	156,863	49,553	91·07	64·39	55·71	115,759 0 6	495,160	0 3 9

*mary.*

of successful the results known.	Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccination per 1,000 of population.	Total cost of Department.	Number of all successful vaccinations performed.	Average cost of each successful case.
	Re-vaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One and under six years.			
7	8	9	10	11	12	13	14	15
65·26	411	1,537	51,251	238,438	51·93	Rs. a. p. 80,304 0 10	426,108	Rs. a. p. 0 3 0
56·79	33	754	4,285	3,962	43·20	16,777 9 5	69,052	0 3 10
64·77	444	1,479	55,536	242,400	51·63	97,081 10 3	495,160	0 3 2
55·96	...	...	816	921	...	...	...	...
...	...	...	...	...	...	...	...	...
32·46	...	...	55	41	...	...	...	...
60·00	...	...	15,052	11,330	...	...	...	...
58·23	...	...	15,923	12,292	...	...	...	...
...	...	...	...	...	...	18,677 6 3	...	...
64·39	444	1,588	71,459	254,692	55·71	115,759 0 6	495,160	0 3 9



B.—DISPENSARY

Statement No. II.—Showing Dispensary Vaccination

Districts.	Number of dispensaries in each district to which a vaccinator is attached.	Average number of vaccinators attached to dispensaries during the year.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator.	Primary vaccination.				
					Total.	Successful.			Unknown.
						Under one year.	One year and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10
Cachar ...	...	...	...	...	...	...	...	...	...
Sylhet ...	...	...	849	...	214	24	137	198	3
Khasi and Jaintia Hills	...	...	2,265	...	481	61	137	286	195
Naga Hills	...	...	197	...	88	46	34	80	8
Lushai „	...	...	176	...	92	24	52	16	23
Goalpara	...	...	569	...	49	11	26	47	1
Kamrup	...	...	...	...	...	...	...	...	...
Darrang	...	...	1,093	...	56	4	6	49	...
Nowgong	...	...	44	...	41	8	26	40	...
Sibsagar	...	...	17	...	5	1	4	5	...
Lakhimpur	...	...	149	...	35	13	19	35	...
Garo Hills	...	...	180	...	25	4	10	14	11
Manipur State	...	...	1,308	...	947	533	323	856	36
Sadiya Frontier Tract	...	...	910	...	246	87	143	230	26
Balipara Frontier Tract	...	...	6	...	6	...	4	5	...
Total ...	...	...	7,263	...	2,285	816	921	1,861	303

Comparative Statement No. III.—Showing the number of persons primarily vaccinated in each of the under

Vaccinating Agents.	Persons							
	Total number.	Number success-fully vaccinated.	Total number.	Number success-fully vaccinated.	Total number.	Number success-fully vaccinated.	Total number.	Number success-fully vaccinated.
	Year ending							
	1925-26.		1926-27.		1927-28.		1928-29.	
1	2	3	4	5	6	7	8	9
Government ...	29,979	27,812	34,589	27,786	65,524	59,339	50,560	44,570
Dispensaries ...	2,353	1,987	2,212	1,801	5,980	5,171	5,662	4,503
Municipal ...	4,881	4,624	5,009	4,787	5,881	5,443	7,231	6,744
Local Funds ...	263,846	256,726	301,565	286,393	312,404	291,569	288,661	270,257
Licensed vaccinators	...	...	...	...	...	...	...	...
Apprentices ...	733	700	900	885	1,092	1,059	713	657
Native States ...	18,089	15,370	16,972	14,655	18,304	15,995	19,366	14,258
Total ...	324,881	307,219	361,247	336,407	409,185	378,576	372,193	340,989



## VACCINATION.

*in the Province of Assam during the year 1934-35.*

Re-vaccination.			Percentage of successful cases in which the results were known.		Percentage of unknown cases to total cases.	
Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
11	12	13	14	15	16	17
...	...	...	...	...	...	...
135	44	20	93.84	38.26	1.40	14.81
1,784	10	1,745	100.00	25.64	40.54	97.81
109	103	6	100.00	100.00	8.84	5.50
84	35	49	23.19	100.00	25.00	58.33
520	268	74	97.92	60.09	2.04	14.23
...	...	...	...	...	...	...
1,037	453	160	87.50	51.65	...	15.43
3	3	...	97.56	100.00	...	...
12	2	...	100.00	...	...	16.67
114	93	...	100.00	81.58	...	...
155	81	37	100.00	68.64	44.00	23.87
361	170	17	93.96	49.42	3.80	4.71
664	284	75	104.55	48.22	10.57	11.30
...	...	...	83.33	...	...	...
4,978	1,546	2,183	93.90	55.31	13.26	43.85

*and the number of those who were successfully vaccinated in the Province of Assam mentioned official years.*

primarily vaccinated.

Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
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31st March—

1929-30.		1930-31.		1931-32.		1932-33.		1933-34.		1934-35.	
10	11	12	13	14	15	16	17	18	19	20	21
36,803	32,086	38,520	33,353	41,320	37,769	35,322	31,076	37,101	30,405	59,210	32,596
2,851	2,231	2,539	2,217	2,753	2,108	2,139	1,629	2,161	1,759	3,414	2,862
4,935	4,645	4,752	4,521	5,900	5,542	5,846	5,582	5,603	5,336	6,376	6,106
260,658	238,776	250,393	230,321	250,148	221,525	284,814	257,327	311,975	272,296	296,742	272,775
...	...	...	...	...	...	...	...	...	...	...	...
1,132	962	1,145	1,078	600	555	446	406	643	507	1,218	1,142
18,240	16,171	17,403	15,203	17,551	15,484	15,530	14,782	16,104	14,219	16,129	15,185
324,619	294,871	314,752	286,693	318,272	282,983	344,097	310,802	373,587	324,522	383,089	330,666



Statement No. V.—Showing the number of vaccinations performed in Municipal towns on children under one year of age during the year 1934-35.

Districts.	Towns.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccination on children under one year during the year ending 31st March 1935.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Cachar	Silchar ...	261	27	96	21st January 1892.
	Hailakandi ...	83	14	7	10th November 1922.
Sylhet	Sylhet ...	599	102	258	1st October 1882.
	Habiganj ...	254	35	58	11th December 1913.
	Sunamganj ...	178	30	8	28th June 1915.
	Karimganj ...	193	29	53	27th July 1915.
Khasi & Jaintia Hills	Maulvi Bazar ...	130	20	80	16th April 1916.
	Shillong ...	665	39	413	21st June 1895.
	Total of Surma Valley and Hill Division.	2,363	296	973	
Goalpara	Dhubri ...	342	40	73	13th February 1891.
	Goalpara ...	199	18	105	12th November 1890.
	Gauripur ...	158	23	54	15th September 1922.
Kamrup	Gauhati ...	745	85	493	August 1882.
	Barpeta ...	874	66	573	29th October 1915.
Darrang	Tezpur ...	305	40	64	22nd May 1907.
	Mangaldai ...	53	7	19	12th October 1906.
Nowgong	Nowgong ...	383	52	236	7th April 1897.
Sibsagar	Sibsagar ...	251	21	29	21st January 1892.
	Jorhat ...	263	31	103	12th April 1892.
	Golaghat ...	184	14	14	24th March 1892.
	Nazira ...	89	12	3	1st December 1916.
Lakhimpur	Dibrugarh ...	460	43	225	September 1883.
	Doom Dooma ...	17	1	7	21st October 1918.
	Tinsukia ...	110	15	39	31st August 1922.
	Total of Assam Valley Division.	4,433	468	2,037	
	Total for the Province.	6,796	764	3,010	



Statement No. VI.—Showing, side by side the ratio (per 1,000 of population) of deaths

District.	1925-26.		1926-27.		1927-28.		1928-29.	
	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.
	2	3	4	5	6	7	8	9
Cachar ... ..	·05	21,904	·01	24,769	·15	41,331	1·61	65,942
Sylhet ... ..	·06	139,006	·16	156,196	1·37	253,654	1·79	219,845
Khasi and Jaintia Hills ...	·0·4	13,547	·05	19,188	·28	63,020	·06	29,559
Naga Hills ... ..	·006	4,859	...	8,740	·006	8,845	...	5,374
Lushai Hills ... ..	...	5,329	...	6,712	...	9,588	...	10,632
Goalpara ... ..	·30	31,517	·57	42,533	1·38	65,943	1·20	49,433
Kamrup ... ..	·69	39,986	1·32	48,991	·67	49,939	·37	49,392
Darrang ... ..	·22	20,353	·36	21,387	·10	25,860	·10	26,664
Nowgong ... ..	·02	20,389	·01	23,095	·005	26,443	·06	26,871
Sibsagar ... ..	2·99	40,821	3·40	61,006	·57	50,473	·06	37,525
Lakhimpur ... ..	·14	22,346	·38	24,436	·53	26,400	·15	20,639
Garó Hills ... ..	·02	8,106	·50	23,994	·41	41,017	·35	22,531
Manipur State ... ..	...	16,300	...	15,598	...	34,317	...	41,077
Sadiya Frontier Tract ...	·09	1,353	·05	2,197	...	3,757	...	4,793
Balipara Frontier Tract ...	...	...	...	...	...	...	...	...
Total ... ..	·45	385,816	·65	478,842	·79	700,587	·86	610,277



from small-pox and the number of successful vaccinations during the ten years ending 1934-55.

1929-30.		1930-31.		1931-32.		1932-33.		1933-34.		1934-35.	
Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.
10	11	12	13	14	15	16	17	18	19	20	21
·32	30,687	·04	19,418	...	19,255	...	24,418	...	22,822	...	27,002
·15	145,407	·04	129,243	·01	108,508	·004	116,176	·02	111,605	·02	120,612
·03	13,574	...	12,937	·003	14,098	...	15,222	...	13,654	...	18,494
...	5,845	...	5,325	...	6,044	...	6,758	...	6,432	...	8,546
...	11,771	...	5,037	...	4,914	...	7,499	...	7,986	...	4,317
·26	55,246	·61	51,704	·29	65,171	·30	110,298	·04	94,802	·01	74,769
·21	49,553	·29	49,825	·17	46,086	·17	41,043	·07	46,478	·10	46,534
·08	26,726	·15	35,005	·04	24,716	·05	28,454	·04	30,935	·06	38,890
·01	27,908	...	28,873	...	28,507	...	28,051	·002	28,922	·03	37,916
·02	39,509	·03	41,950	·07	34,567	·06	50,493	·01	35,214	·01	36,946
·26	21,346	·27	25,601	·11	18,877	·03	24,440	·008	28,118	·01	34,550
·06	21,541	·13	18,997	·15	14,948	·03	13,978	·06	21,342	..	18,855
...	30,444	...	19,284	...	18,726	...	20,313	...	20,293	...	7,890
...	4,385	·02	6,777	...	4,123	·09	2,878	...	2,552	...	5,131
...	...	...	...	...	291	...	478	...	514	...	400
·14	483,942	·14	450,006	·07	408,831	·06	470,499	·03	471,669	·02	480,852



## GOVERNMENT OF ASSAM.

### The Governor and the Minister of Local Self-Government.

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#### Resolution on the Annual Public Health Report of the Province of Assam for the year 1934.

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*Extract from the proceedings of the Governor of Assam and the Minister of Local Self-Government in the Local Self-Government Department, Public Health Branch, No. 4971-L. S.-G., dated the 14th December 1935.*

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READ—

The Public Health Report for the year 1934.

#### R E S O L U T I O N.

THE birth-rate fell from 31·04 in the previous year to 30·62 in 1934, and the death-rate from 20·31 to 19·64. These rates are calculated on the figures of the 1931 census, but as in the last report an attempt has been made to estimate the probable present population: according to this the rates would be 29·61 and 18·99 respectively. Both are lower than the corresponding rates in most other provinces, but such comparisons are likely to be vitiated by defects in the system of registration, of which there are glaring instances cited in the body of the Report.

2. The year was generally satisfactory in respect of health. Cholera was not so serious, and only 1,904 deaths from the disease were recorded, as compared with 5,508 in 1933: this is indeed the lowest total for many years. The following spring however has produced a serious and wide-spread outbreak. Small-pox showed a new low record of mortality since 1912, deaths being 206. The number of attacks and deaths from *kala azar* rose only slightly, from 12,650 to 13,398 and from 749 to 770 respectively. These figures are again completely dwarfed by the deaths, 101,779, classed as due to fever, which include a large proportion ascribable to malaria. This is no doubt still the worst enemy against which the population of the province has to contend, playing as it does a part as accessory in many fatal illnesses even where it is not the principal. Typhoid was responsible for 42 deaths in ten towns, seven of which have piped water supplies. The continued prevalence of typhoid cases in Gauhati, where the causation has not yet been definitely identified, causes anxiety. If there is any reason to suppose that the rural population has an acquired immunity against typhoid and that this immunity is lost by regular consumption of chlorinated water, it appears desirable that the towns-people should be warned against the occasional resort to other sources, which might be a cause, as well as contamination of milk or of municipal water-supply, for outbreaks.

3. Investigations into cholera continued at the Pasteur Institute, and with bacteriophage in the field. The results achieved with bacteriophage in the field have varied considerably in the extent to which they suggest that this is a valuable agency in checking cholera: the virtue of the 'phage can only be left to the future for definite assessment. As was observed in the Resolution on the previous year's report, the statement that combined 'phage does not appear to have influenced the mortality from dysentery in Nowgong—a 'phage experimental area—indicates a need for study of this phenomenon. The origin of the initial outbreak has been established in numerous recent epidemics as being import by travellers, harvesters and workers from Bengal districts. In regard both to basic research and practical investigation of the properties of bacteriophage a need for some method of studying causation in the field and for prompt examination of material on the spot seems to have been shown.



The Goalpara epidemic again brought into prominence the loss of life entailed by delay in reporting outbreaks until they have secured firm hold. Attention is being given to the possibilities of improving the intelligence system within the limitations imposed by public ignorance and the absence of a paid agency; also of securing the public observance of certain essential precautions by statutory regulation under the Epidemic Diseases Act.

4. The Assam Medical Research Society completed a number of malaria surveys in the Assam Valley and achieved advances in knowledge which give promise of great practical value. The future of the society up till the time—in 1937—when the principal present enquiry is expected to be complete, has been assured by the decision of the Indian Research Fund Association to continue a grant for this period. The subsequent arrangements for carrying on a work of great importance, both sanitary and economic, are being examined by Government. The report does not refer to the question whether anti-malarial measures have, as is believed to be the case, reduced the incidence of malaria.

5. The number of vaccinations was 704,936 as compared with 706,460 in the previous year. It is unsatisfactory that barely 50 per cent. of the infants due for vaccination were successfully vaccinated during the year. The whole of Goalpara district was notified under the special regulations as a compulsory area, as well as certain mauzas elsewhere.

6. An important decision was taken after the close of the year—to make the greater part of the Public Health Department staff permanent—and the Council voted a token demand for that purpose at its last session. This is a step which has been delayed, not merely by shortage of funds, but also by doubt how long, with the gradual diminution of *kala azar*, a large cadre of qualified medical workers would be required, and what form of organization would be best suited to the ordinary problems of public health. It has however become increasingly evident that the treatment of special diseases, especially leprosy and yaws, which the Department has been compelled by circumstances to undertake, will for many years preclude any considerable reduction in the medical staff required even if fears of the possible recrudescence on a large scale of *kala azar* should not materialize. The improvement in status and prospects thus attained has been well deserved by the manner in which the Public Health personnel has faced the very arduous tasks presented by large scale cholera epidemics in recent years, and also the unpleasant and frequently hopeless—seeming routine duties of treating special diseases.

7. Inadequate resources prevented any real improvement of rural conditions by the local boards. Early in the following year the announcement by the Government of India that a crore of rupees would be spent in the provinces on amelioration made a definite move in this direction possible. Of the 5 lakhs allotted to Assam 3 lakhs will be spent on drinking water-supply, the deficiency of which has been markedly shown by the course of epidemics, and Rs. 40,000 on rural sanitation.

8. His Excellency and his Minister have read the report, with the names of those who rendered conspicuously good service, with much interest, and trust that the recognition of its permanent usefulness will inspire the Department to even more vigorous efforts for the solution of the province's many health problems.

By order of the Government of Assam,

SHILLONG :

The 14th December 1935.

H. G. DENNEHY,

Secretary, Transferred Departments.





